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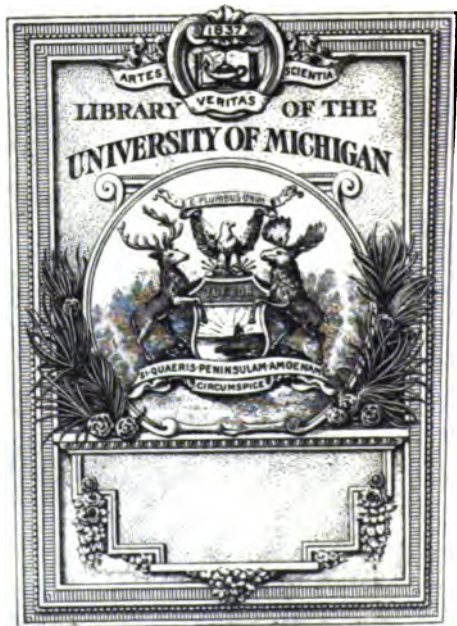
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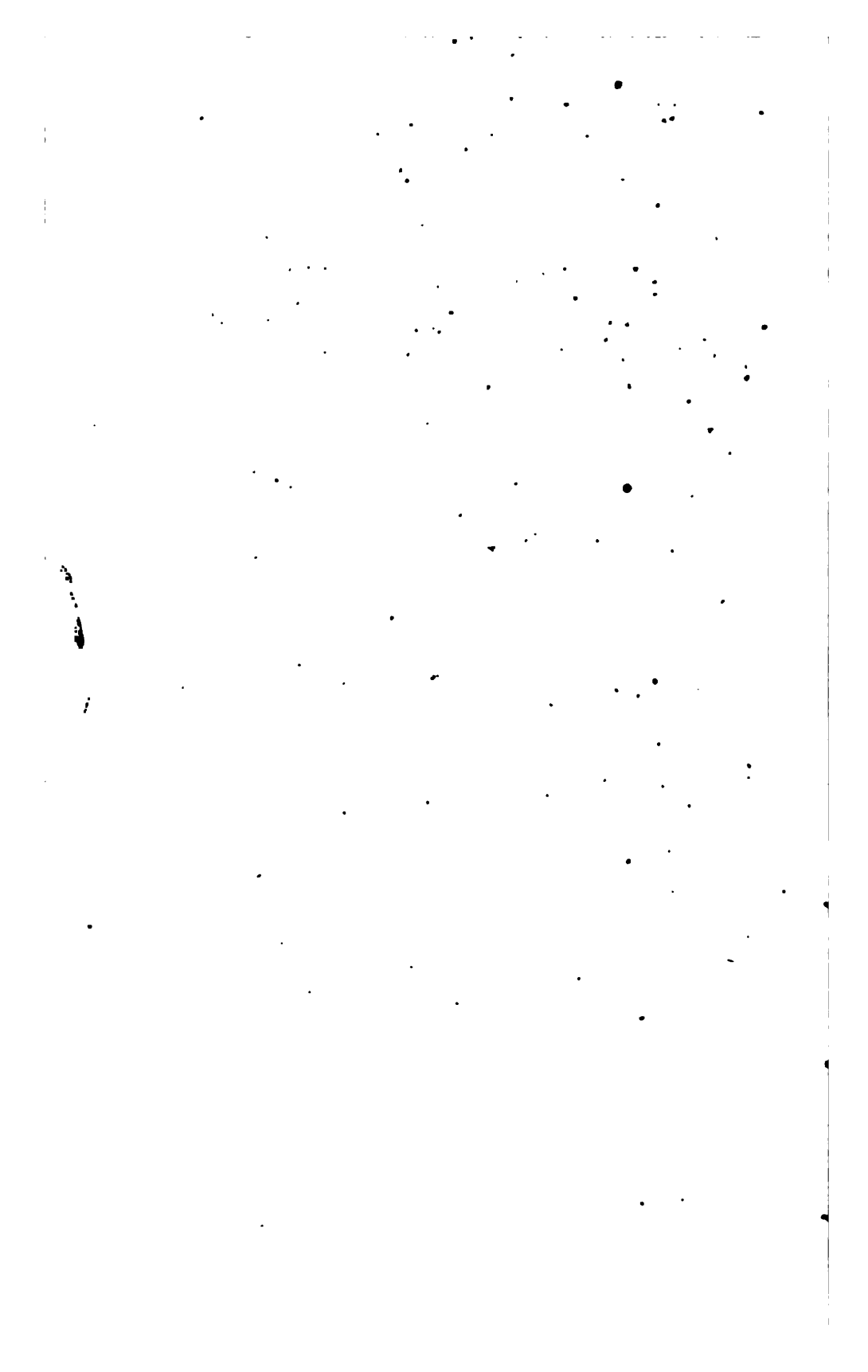


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THE
Medico-Chirurgical Review,
AND
JOURNAL
OF
MEDICAL SCIENCE.

EXHIBITING A COMPREHENSIVE ANALYTICAL RECORD OF
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EQUALLY ADAPTED TO ALL RANKS OF THE PROFESSION.

CONDUCTED BY
ASSOCIATED PHYSICIANS AND SURGEONS;

AND SUPERINTENDED BY
JAMES JOHNSON, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

(Analytical Series.)

VOLUME III. for 1822-3.

*Nec tibi quid liceat, sed quid fecisse decebit
Occurrat, mentemque domat respectus honesti. CLAUD.*

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PREFACE TO VOL. III.

OF

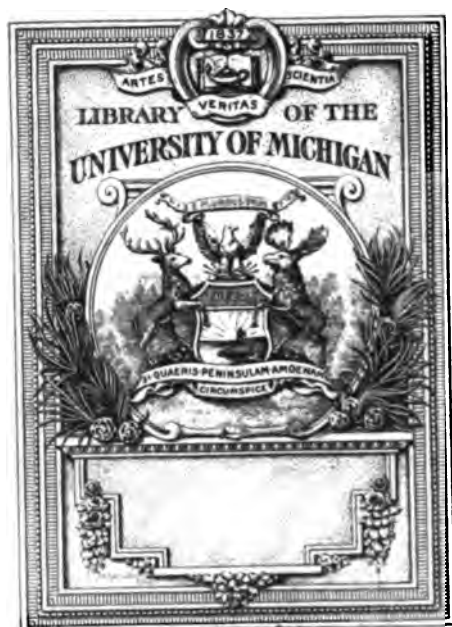
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(Analytical Series.)



THIS Journal has now completed the fifth year, or first lustrum of its literary existence; and it cannot look back on so eventful a period of its life without strong emotions, whether reflective on the present, or reminiscent of the past. At the commencement of the epoch alluded to, the Editor may be said to have staked his ALL upon the issue of the undertaking. With success in it, there *might be* success in other things—with its failure, ruin *must have* ensued—not only to himself, but to a large family! There are probably but few, whose organization of nerves would enable them to contemplate such a posture of their own affairs with perfect indifference,—especially when the whole history of PERIODICAL MEDICINE exhibited not a single instance of individual success or independence from such a source alone. When, therefore, the Editor can safely assert, that the MEDICO-CHIRURGICAL REVIEW returns him a nett revenue, at the present moment, of ONE THOUSAND POUNDS PER ANNUM,* he has just reason to be grateful to PROVIDENCE for sparing him health, and to the PUBLIC for awarding him so liberal a recompense for his

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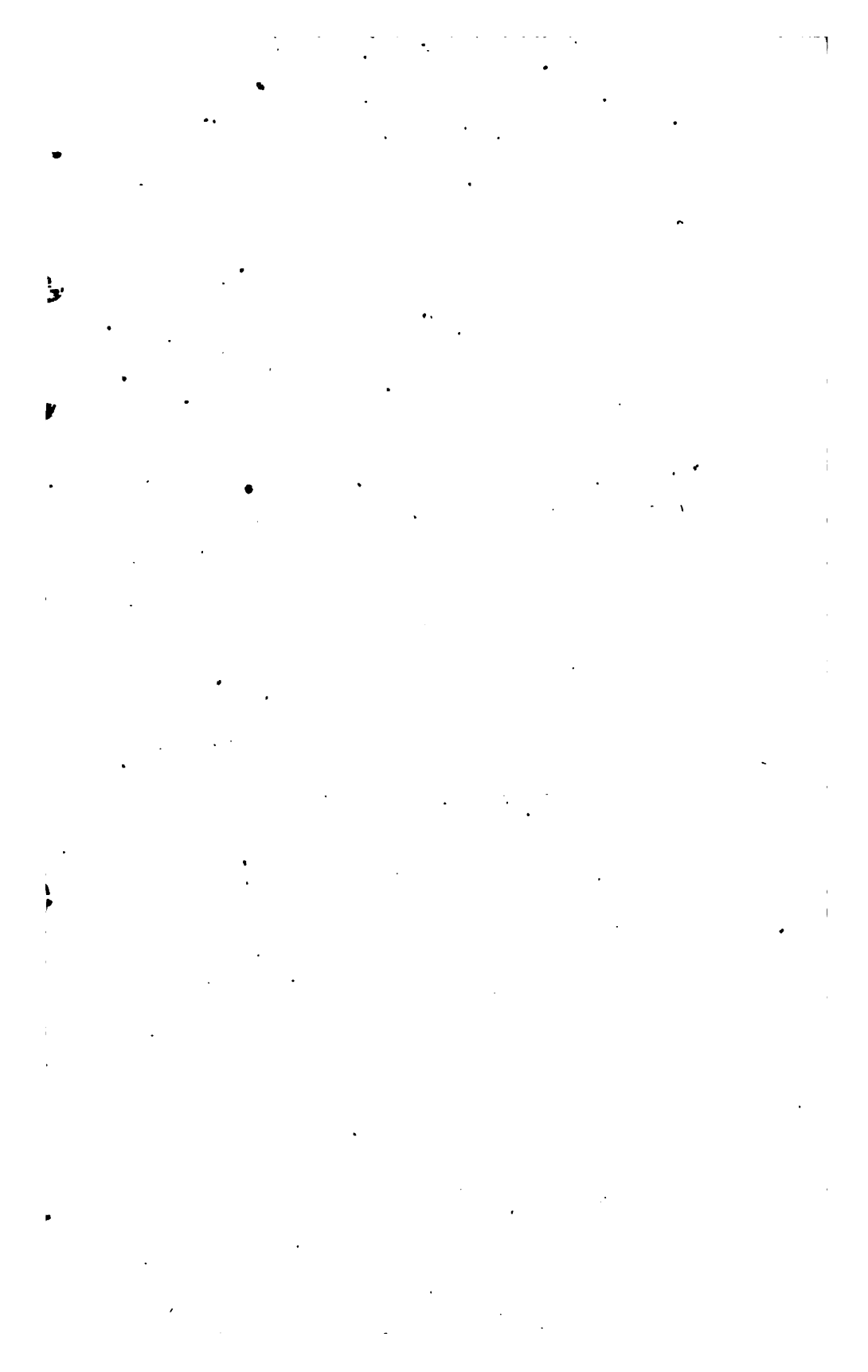


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THE
Medico-Chirurgical Review,

AND
JOURNAL OF MEDICAL SCIENCE.

(Analytical Series.)

"Nec Araneorum textus ideo melior, quia ex se filantur; nec noster
vilius, quia ex alienis lubamus, ut apes."

VOL. III.]

JUNE 1, 1822.

[No. 9.

I.

BRITISH PATHOLOGY.

Elements of Pathology and Therapeutics ; being the Outlines of a Work intended to ascertain the Nature, Causes, and most efficacious Modes of Prevention and Cure of the greater Number of the Diseases incidental to the Human Frame ; illustrated by numerous Cases and Dissections. By CALEB HILLIER PARRY, M. D. F. R. S. Member of the College of Physicians of London ; Physician to the General Hospital at Bath, &c. &c. Vol. I. General Pathology. Octavo, pp. 464. London, 1815.

SOME of our readers may be surprised at our taking up a work that has been seven years before the public. It is true that it has been seven years before the profession, but they are not yet acquainted with it. We have reason to believe, or rather to know, that not *four* hundred copies have been distributed among a British professional public, of at least eight thousand individuals ; consequently the work is virtually unknown to nineteen-twentieths of medical society. Were it a book of common merit, we should let it take its chance ; but believing it to be one of the most enlightened productions that ever issued from the press, in any age or in any country, we should hold ourselves culpable if we did not give it that publicity which may ensure it an attentive, as well as an extensive, perusal. In the first number of the *monthly* series of this Journal, we attempted this object ; but our well-meant labour failed on account of the then limited circulation of our Journal. The case is altered. We can now make known—effectually known, the merits of a publication, from Delhi in the East, to Cincinnati in the West.

Vol. III. No. 9.

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It is true that Dr. Parry's work has been *reviewed* in medical Journals. But, alas ! as one of the most able writers of the age remarks—"modern *criticism* too often discloses that which it would fain conceal, but conceals that which it professes to disclose—it is therefore read by the discerning, not to discover the merits of an author, but the *motives* of the critic."^{*}

The course which we pursue cannot well come under the above censure ; for it is obvious that our public duty is also our private interest—that of charging our pages with useful matter from others, rather than captious criticism from ourselves.

The work now before us, we confidently predict, will stand a monument of fame to the author (now, alas ! insensible to flattery or censure) "ære perennius," and an honour to the age and country in which it saw the light.† With the exception of a few points of doctrine, we believe that these "Elements of Pathology" will defy the ordeal of criticism, and finally receive from the profession at large, a sentence the most honourable and gratifying which an author can wish, or the public voice confer.

It is a work, indeed, which may justly be characterized as "pregnant with thought, and matured by reflection;" but it is, on this account, less suited for the lower than the higher classes of the profession. There is a terseness, a precision, and an aphoristic conciseness in every sentence, that will assuredly cause it to appear dry, or even obscure, to the sciolist, and to the less studious members of the medical world ; but which must render the work more valuable to those who look beyond the surface of things, and study with care the mechanism, the functions, and the lesions of the human frame.

The extent of our analysis will, therefore, be proportionate to the value which we set upon the publication ; and we cannot pay a greater compliment to the author, or confer a greater benefit on our readers, than by allotting a portion of our Review to the dissemination of Dr. Parry's labours,

^{*} Reverend Mr. Coulton's *Lacon*

† One great reason, indeed, for our here bringing forward an extended review of Dr. Parry's work, is to show our own, and our continental brethren, what enlightened views of Pathology have been entertained in this country, founded, not solely on post mortem appearances, as is too often the case, but chiefly on an attentive observation of morbid phenomena in the living body. The world will see that many doctrines now making much noise on the continent and in this country, have been completely anticipated by our own illustrious pathologist seven years ago.

which will at once evince the estimation in which we hold them, by the reluctance with which we shall part from them.

The work is divided into one thousand and twenty-three aphorisms or passages, of unequal lengths, and apparently with little regard to order or arrangement. This *plan* we humbly conceive to be injudicious, inasmuch as it is very uninviting to the reader; but Dr. Parry, no doubt, trusted to the sterling merit of the *matter* without showing any very fastidious regard to the *manner* in which it is conveyed.

After some observations on the nature of medical science, our author enters on a consideration of the disordered states of the sanguiferous system, which form the most obvious deviations from health, of any incidental to the animal frame. These consist in some excess or defect in the quantity or velocity of the circulation. The *quality* of the circulating mass is left out of consideration. The *general* velocity of the blood may be natural, while in particular *parts* of the body it may be retarded or accelerated. So also in regard to quantity; the excess or deficiency may be either general or local; that is, there may be excess in one part and deficiency in another, or there may be general excess or deficiency in every part of the system at the same time. *Excessive* quantity is denoted by quick motion of the heart; preternatural fulness of the arterial, capillary, and venous system, and vice versa. The habits of mankind in civilized society tend to produce excessive nutrition, and consequently plethora in the human frame. This state of the sanguiferous system characterizes nine-tenths of the diseases of persons in moderately affluent circumstances. Blood is the pabulum from which, as it circulates through the capillaries or elsewhere, caloric is sensibly evolved, by whatever power that evolution may be effected. An increase of momentum and quantum in the circulation of a part is characterized by preternatural redness and size of that part, and especially if the arteries leading to, and the veins receding from that part, be unusually distended. The *quantity* of blood in the whole system remaining the same, a diminution in one part must produce plethora in all, or some other parts of, the system, and vice versa. The same may be said of the *momentum* of the blood. The coats of arteries possess two powers of motion; the first is mechanical elasticity, the other a vital or muscular power, denominated by our author *tonicity*. It is something similar to muscular action, but our author denies that the middle coats of arteries are *fibrous*. They have, however, "an inherent capacity of motion," and that is enough. In the larger arteries the mechanical, in the capillaries, the *tonic* power prevails. Our author believes with

Haller, that the force of the heart *alone*, in health, is adequate to the task of carrying on the march of the blood through its entire circulation. He concludes, that muscular contraction in the vessels themselves, would just as much impede the ingress of a new quantity of blood, as promote the egress of that already existing in them. However it may be explained, it is known, that certain vessels become unusually distended with blood, not only from excessive impulse by the heart, but *without* that impulse, as where shame fills the cutaneous arteries of the face, neck, &c. One of the most important phenomena of the animal frame is, that after vessels have been more or less robbed of their blood, a contrary state succeeds, termed *reaction*, altogether inexplicable, but on the principles of vitality. From our author's observations on the structure and functions of the sanguiferous system, we shall only extract the following passage.

"The arteries and veins being in a state of health always full, and the blood being incompressible, that fluid may be considered as if it formed a continuous solid column all the way onwards from the mitral to the tricuspid valves. Hence, at every systole or contraction of the left ventricle of the heart, the shock acts at the same instant throughout the entire circle." 34.

Our author justly observes, that could we calculate, from the heart's action, respecting the proper quantity of blood in the whole, or any part of the system, great benefit would result; but the pulse is now as it was two thousand years ago—"res fallacissima." Thus, in many diseases, the pulse of the radial artery will be small, while that of many other tangible arteries will be full and strong. Again, the face and head will often be flushed and hot; the pulse of the carotids strong, full, and bounding; while all the extremities are cold and pale, and the pulsation of their arteries small and weak. In gout, and local inflammations without fever, the arteries leading to the diseased parts will throb violently, while other arteries are tranquil or below par. This remark ought to be kept in mind, as it would often lead to the detection of disease. A general, but not universal law of the human constitution is, that excessive morbid determination to two different parts shall not exist in the same person at the same time. This is exemplified not only in gout, but in several other diseases; for he who has a catarrh to-day, may have a fit of the gout to-morrow; then a discharge of blood from the hæmorrhoidal veins, and shortly afterward, a rupture of the medullary substance of the brain, from sanguineous effusion. This change of deter-

mination is a most interesting subject in animal pathology, and has been long caught at in the treatment of diseases, though with not so much success as could be wished. Thus it is usually in vain that we attempt to solicit to the extremities that excessive determination of blood which is called gout, though we employ topical heat, friction, blistering, &c.

Our author is of opinion, that although a suspension or cure of a disease may, perhaps, be occasionally produced by certain violent causes, (as he had seen asthma suspended by a blow on the head) yet, in the common order of conversions, the new affection or determination is, in point of time, either coexistent with the disappearance of the old one, or more usually subsequent to it; so that in reality, we cannot cure a malady by bringing on the gout, but must first cure the malady, and then, in a predisposed constitution, there is a fair chance that gout will supervene. The same principle is applicable to a great number of other occasions of the highest practical importance, as will be hereafter shown.

Inflammation and its consequences. After enumerating the various characteristics of inflammation, as it affects different tissues, our author remarks that, of that termination strictly called resolution, or return of the colour and size of parts to precisely their former state, without any discharge, he never met with a single instance. In all these terminations, our author asserts, and we are perfectly of his opinion, that some exhalation from the over-distended vessels takes place, either into the cellular substance of the part, or neighbourhood, or from the cutaneous surface itself externally, or membranes, as the pleura, peritonæum, &c. internally. Of the other terminations we need not speak, but the foregoing remark is to be borne in mind. When constitutional symptoms accompany local inflammation, if blood be drawn in a projecting stream from a vein in the arm, and received into *small vessels with polished internal surfaces*, and suffered to cool slowly, it will exhibit a coat of fibrine, or what is called the inflammatory buff. But if other portions of blood be taken from the same patient at the same blood-letting, into *larger vessels*, or into one with a rough inside, as queen's ware, though they be first drawn, and having the freest flow, no such crust will be seen. This ought also to be borne in mind. Although this appearance affords a presumption of some local inflammation, it is not absolutely decisive. It occurs during pregnancy—in morbid determinations, as hæmorrhage, &c. and also at the commencement of synocha, before any local inflammation exists. It also is occasionally

seen in the blood of very old persons, and in those of a *nervous* disposition, where there is total exemption at the time from topical inflammation.

Dr. Parry, by a long chain of reasoning, attempts to prove, contrary to the theory of Dr. Philip, that in all inflammations, there is not only dilatation and increased quantum of blood in the vessels of the part, but that there is an increased *velocity* or momentum of the vital fluid, particularly when to the *local* inflammation is added *general* fever. Of this increased velocity we much doubt, notwithstanding the arguments of our author; nor has he convinced us of the "influence of the systole of the left ventricle on the returning venous blood," because "it frequently happens, that in gouty inflammation of the wrist, blood taken from the cephalic vein is propelled in jets, as strong as those from the temporal artery, and precisely synchronous with the pulse in the radial artery in the other arm." 78. We think that this curious phenomenon (which we have witnessed in many instances where there was no gout or local inflammation at all) might be accounted for otherwise than by supposing that the systoles of the heart "extended their projectile force through the capillaries, and nearly back through the entire course of the circulation."* 79. Dr. Parry offers some ingenious and sensible observations on what is termed the "*proximate cause*" of a disease, defining it—"that phenomenon, in the body or part, most *immediately preceding* the state which we call disease, without which previous phenomenon, the disease is not known to exist." 91. In this point of view, an increased momentum in the velocity of the

* If a heart be taken from a living animal, and put into warm water, it will continue to *dilate* as well as contract, for a considerable time. If the heart of a turtle, for instance, be held in the hand, the *force* of dilatation is just as great, or nearly so, as that of contraction. Why then should not the dilatation of the cardiac cavities act as decisively in *abstracting* blood from the *venous system*, as the contractions of these cavities in *propelling* it through the arterial? We see no reason to the contrary; indeed, we firmly believe that the heart acts in this double capacity; and that the great object of the trunks of vessels is to *convey* the blood to the capillary system, having the power of adapting their calibres to the ever-varying current through them. The uses of the capillary vessels, we believe, to be very different from, and very much more important than, that of *propelling* the blood. They have *secretion* to perform in *every* part of the system—in the muscles as well as in the glands. They have to change the blood from its arterial to its venous state, whatever may be the nature of that change. These important offices, however, are not sufficient in the eyes of many physiologists. The capillaries must *circulate* the blood, although there is a most powerful and wonderful organ for that express purpose.
Rev.

blood through a part, and also a dilatation of the vessels of that part, may be considered as the proximate cause of inflammation.

Speaking of the process by which Nature cures an inflammation, our author justly observes, that after increased action, the heart generally falls into a state of unusual quiescence; while at the same time, the general mass of blood is more or less diminished; (for instance, by the diminution of increment during all inflammatory affections.) It is, therefore, difficult to say, whether an exhaustion of the heart, in consequence of over exertion, or an abstraction of a quantity of that blood which is so great a stimulus to its action, be, in this case, the chief cause of its quiescence; both probably concur. 94.—On the other hand, if, by undue stimulation, too sudden a restoration of the plethoric state succeeds, and the heart is again excited to excessive action, the local disease, or some vicarious one, is readily produced. This we have so frequently seen bring on relapses after febrile diseases, that we heartily concur with Dr. Parry, when he deplors the mischief that too often results,—

“When, under the delusive notion of strengthening the patient, he is pampered with full diet, and stimulated with every description of drachms, whether solid or fluid, which the elaboratory of the cook, the vintner, or the apothecary can supply.” 96.

In fact, the quantity of blood, suited to the salutary performance of the circulation, is by no means always the same, even in the same person. Thus, a man in the prime of life and health shall habitually have a considerable fulness of the sanguiferous system, yet enjoy an exemption from disease.

“But should the same man, after having been emaciated, suddenly grow full of blood, some violent disease, or succession of diseases, will usually again occur, and reduce the habit to its former state of emaciation.”

A multifarious series of this kind will sometimes occur, during convalescence from long and violent diseases; and in other cases, where health and strength have succeeded to great extenuation, and have continued for months, and even years, no sooner has the habit, by degrees, recovered its prior fulness, than the same, or a similar acting disease, shall return, and reduce the patient to another emaciation. This course we see continually exemplified in gout, erysipelas, and various other diseases, which are called constitutional.

“And indeed, they are so frequent,” says Dr. P. “that one cannot help considering the increased action of the heart, and the general circumstances of the disease connected with it, as natural efforts

to remove a degree of fulness incompatible with the due performance of the healthy functions of that individual constitution." P. 97.

Under circumstances of *previous reduction*, from whatever cause, what morbid effects do we not daily see, even from an improper meal—from a strong mental emotion—from watching, —wine, &c. which, in health, would never be noticed? Is it not, that in such cases, the heart is more susceptible of the stimuli applied to it?

Dr. Parry next enumerates the various structures of the human body, according to the arrangement of Bichât, and while he admits that each tissue is subject to its own peculiar modifications of disease, in *general*, he yet remarks, that the disease of one tissue will sometimes spread to another; and doubts "whether, in *all* the different textures, there is not *one* component or constituent part which is primarily affected in that morbid change called inflammation." 100.

It has been before remarked, that all terminations of inflammation are attended with more or less extravasation, and the same so commonly occurs in cases of general increased impetus, as in sweating after strong exercise, exposure to heat, palpitation of the heart, fever, &c. in all of which, a reduction of the increased impetus follows the effusion, that we cannot help conceiving the evacuation to be a process expressly designed for the purpose of mitigating or curing the disease.

Wherever important functions are to be performed, there we find a large supply of blood, by means of arteries terminating in an infinite number of capillaries, and disposing those very parts particularly to congestion or inflammation. But the benevolent Author of our existence has made ample provision against these occurrences. Thus these various parts or organs are abundantly furnished with exhalents or secretory vessels from their capillaries. First apparatus, a simple surface, as the skin and mucous membranes. Second, natural cavities, the internal surface of which is lined with similar membrane, as the stomach, bowels, bladder, &c. Third, discontinuity of substance forming virtual, though not often real cavities, into which exhalents open, as the cellular system, ventricles of the brain, medulla oblongata, nerves, duplicatures of the pleura, peritonæum, pericardium, synovial receptacles, &c. Fourth, an excretory duct or ducts, as in the mammæ, liver, kidneys, &c. &c. Most of these organs have a combination of two of these circumstances of structure, so as to acquire a double power of evacuation. Thus the lungs have pleura without, and mucous membrane within. The liver, peritonæum without, and pori

biliarii from within. To these may be added, the cellular, parenchymatous, and other substances, affording a third emunctorv for the superfluous contents of blood-vessels, by means of exhalents and secretory capillaries every where opening into them. To these contrivances there are only two exceptions, the thyroid gland and spleen.

The extravasated fluids resulting from inflammation are various. The simplest form is that of serum effused into the cellular membrane, as in superficial gouty inflammation; it is a true dropsy or œdema of the part. The same occurs as a termination of various inflammations; as of the gums, in caries, &c. of the teeth; of the leg, in sciatica; of the joints, in rheumatism; of the lungs, in peripneumony; of the forehead, temples, and eyelids, in erysipelas; in all parts, from external injuries, as blisters, &c. The same kind of effusion is poured out on the surfaces of the serous membranes, as the pleura, pericardium, &c. It is not confined, however, entirely to serous membranes:

“For in certain cases of pulmonary hectic an expectoration often occurs of a dense, hard, globular substance, partly transparent, and partly of a pearly whiteness, which immediately falls to the bottom of the water into which it is thrown, and has much the appearance of thickened albumen.” 107.

Dr. P. is of opinion that albumen and fibrine are increased by all inflammatory processes in the constitution. The deposition of fibrine in particular, Dr. P. thinks, may account for various painless, but hard and obstinate swellings, which succeed inflammations, especially about the tendons and joints. Our author believes, and we think with reason, that small parts of the body may be made to unite again, after having been entirely separated, as Dr. Balfour and Mr. Bailey have indeed lately proved.

Another termination of inflammation is the effusion of blood itself. We see this in the bloody spots or streaks in the sputa of bronchitic and pneumonic patients, which when slight, are always favourable. In pulmonic and hepatic inflammation, however, blood is often *fatally* effused into the air-cells and pori biliarii. Even from the surfaces of serous membranes entire blood is sometimes exhaled, especially about the period of death, both previously and subsequently. That termination of inflammation denominated Pus is not, even to this day, exactly characterized, since it (pus) is hardly ever procured unmixed with other fluids. Dr. Parry is inclined to believe that real pus may be secreted from unbroken surfaces.

“In cases of hemiplegia,” says he, “in which blood is effused
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into the medullary substance of the brain, that fluid may be seen in all the intermediate states from entire blood, through what in appearance exactly resembles pus, to complete absorption." 122.

Dr. P. next takes a review of the various morbid, or rather *salutary* effusions and secretions which result from inflammatory processes, or increased momentum of the blood; previously observing, "that on a great variety of occasions, the effect of inflammation is to increase the natural secretions of the parts affected." But we are of opinion that, "on a great variety of occasions," the *contrary* is the case, and particularly in one of those instances which he has brought forward in corroboration of his opinions, viz. hepatitis. We have had opportunities of seeing this disease on a much larger scale than Dr. Parry; and from very attentive observation, we believe we may say with safety, that, during inflammation of the liver, there is in reality a *paucity* of the biliary secretion. We know, indeed, that discharges of morbid bile sometimes take place during the inflammatory process, and are speedily ejected from their irritating qualities; but such occurrences are not to warrant the conclusions which our author has drawn. Our author is of opinion, and with reason, that although these discharges from inflamed vessels are sometimes fatal (as in hydrocephalus or pneumonia for instance,) "the process, in a great majority of cases, is beneficial to the animal frame." 128. Among the fluids effused from inflammation, Dr. P. enumerates that cream-like substance deposited in the cavities of joints, in capsular ligaments, in the sheaths of tendons, &c. which, by the absorption of the thinner parts becomes what is called chalk-stone, a well-known effect of highly inflammatory gout, and consisting of uric acid. The same is deposited in the cellular space between the inner and fibrous coats of the larger arteries, becoming true bone, or phosphate of lime, and producing such distressing effects, resulting, according to our author's observations, from an inflammatory affection of the vasa vasorum; and when on the coronary arteries of the heart, predisposing to syncope angens. Nodosity of the joints, Dr. P. supposes to be owing to "an erroneous deposit of common bone."

It has been shown, that the capillary arteries have a power of contracting to their natural size, after being preternaturally dilated with blood. This power, however, seems to diminish, *ceteris paribus*, in proportion to the violence and duration of the distending cause:

"Hence," says our author, "one can scarcely avoid considering the state which follows, as what Dr. Cullen would have called

collapse, consequent on undue excitement; and Dr. John Brown, indirect debility. But whatever name may be given to this state, the order of facts is not the less true," 135.

DROPSY. One of the simplest and most common terminations of inflammation is extravasation of serum, or one of its constituents; thus the swelling, which often accompanies the cessation of gouty paroxysms, is a true dropsy of the anasarcaous kind, following, in free spaces, the direction of gravitation: "where, however, it is considerably extensive, it seems to arise *against gravitation* relatively to the inflamed part." This phenomenon, Dr. P. thinks, may be explained by supposing that the expulsive power of the exhalents overcomes the force of gravity in a column confined all around. Since we find that in gout, œdema continues to extend itself in proportion as the inflammation in the foot subsides, and often exists long after all symptoms of local inflammation are gone, "we cannot help," says Dr. P. "attributing its occurrence, in the latter case, to such a state of momentum of blood still existing in the vessels leading to the part originally inflamed, as produces preternatural evacuation by exhalation." And on the same principle, the anasarca or œdema, extending to a distance from the original *seat* of inflammation, "originates in a similar condition in the neighbouring arteries and exhalents; both of which appear, from all the phenomena in such cases, to be preternaturally distended with blood." 141. Thus, in œdematous swellings of a lower extremity, following gout in the foot, if we apply a bandage to the foot and ankle, we shall still find an œdematous swelling recur every night *above* the bandage, and often in a greater degree than before the bandage was applied. Hence we may conclude that *increased momentum* is sufficient to produce anasarca or œdema, without the existence of local inflammation as the source from whence the effusion takes place. Dr. P. illustrates this reasoning by the œdematous swellings of lower extremities following scarlatina, and also the ascites which not unfrequently supervenes, both evidently originating in the high phlogistic diathesis then prevailing in the system.

The fluid effused in what are supposed to be idiopathic ascites, hydrothorax, and anasarca, has all the chymical qualities of common serum; and the identity of the fluid thus effused with that which arises from certain degrees of inflammation in the same membranes, is certainly a strong argument in favour of a state in them approaching to the phlogistic diathesis. 143. This idea is farther strengthened by the thickening and opacity of the peritonæum and pleura, unaccompanied with disease

of the liver or other part, which we see in ascites and hydrothorax, and which would justify our inferring a previous topical inflammation in those membranes. This inflammation proceeds in so slow and chronic a manner, with little or no pain or fever, and with only some symptomatic irregularity in the alvine excretions, that the patient is scarcely aware of the existence of important disease till he is alarmed by a preternatural tumefaction of the belly. So, our author has seen hydrothorax slowly arise from a diseased state of the pleura following slight inflammation, accompanied with habitual fever and high-coloured urine, but without the smallest affection whatever of the organs of respiration, till after the lapse of several months, when, at the end of a few days, the patients died, and dissection exhibited copious serous extravasation, without any pulmonary disease. 145. Anasarca of the lower extremities is also often preceded in them by local pains, which do not go the length of inflammation, and subside as the effusion takes place. In such cases, we cannot reasonably expect to find the secreting membranes to be always in a morbid state; for here, as in acute inflammation, the exhalation is the cure, or at least the effect of the curative process of the excreting parts. Hence the explanation of Bichât's assertion, that in increased secretions, the vascular system supplying the part, is not generally found more full than on other occasions.

The fluid found in the cavities of the brain in hydrocephalus is not serum, or at least contains little of it. It is not coagulable by heat or acids, though a small proportion of albumen is precipitated from it by the voltaic pile. It is worthy of attention, that dropsy is often evidently produced, and when existing aggravated, by many of those circumstances which are known to increase the momentum of the blood, as intemperance gives rise to ascites and anasarca without hepatic disease. From all these circumstances, it is probable, that although serous effusions are usually the consequences of local inflammation of either cellular or serous parts, yet they may occasionally take place from a degree of excessive momentum short of that which would have been necessary to produce either of these two states. As inflammation rarely occurs till some time *after* increased momentum of blood, so extravasation uniformly obeys a similar law, as may be illustrated by the obvious example of sweating, which rarely supervenes till a considerable time after the increased action of the heart from heat, exercise, &c. On other occasions of increased momentum, as in inflammation, effusion is not always proportioned, either to the mere dis-

position in the capillaries, or to the degree of increased momentum; but is relative to the sum of the two taken together. 148.

"Hence it will be found, that in certain states of the capillary system, even the healthy impetus may be sufficient to cause effusion; while, in other states, very great degrees will not produce the same effect, either at all, or else only through the medium of local inflammation. Ib.

This principle, our author thinks, will comprehend all the more essential examples of idiopathic dropsy, as well those styled *active*, as those attributed to debility.

"In this view, the malady in question, and the state of inflammation, throw on each other reciprocal light; since it appears that both have in common the circumstance of a degree of momentum of blood, which is excessive with regard to the whole, or a part of the animal system in general, or of that particular animal, or accidental constitution of the animal, which is the subject of the malady." 149. "If these facts be well founded, general dropsy, like the extravasations of inflammation, is to be considered rather as a salutary effort of the constitution to diminish morbidly increased momentum, than as a primary or actual disease."

In this, as in the former case, the effusion, occurring in certain parts, as in the ventricles of the brain, may prove fatal. This principle also illustrates the efficient and final causes why dropsy of various kinds follows venous and glandular obstruction; the arterial blood, thus arrested in its natural course, pouring out its serum through the exhalent extremities of the containing vessels. The phlogistic diathesis, our author thinks, may not be essential to serous effusion, or dropsy; though few dropsies will be found to exist without the appearance of inflammatory crust in the blood, at some stage or other of the disease. We may also conceive that yielding state of vessels, approaching to that of death, which, in order to the production of effusion, does not require the coincidence of excessive momentum.

It ought always, however, to be kept in mind, that in all these cases, the impetus is excessive with regard to the individual constitution, and therefore is speedily followed by the process of effusion. Dr. Parry remarks, that diminished absorption, as a cause of dropsy, is utterly untenable, his observation not having furnished him with a single fact in support of the agency of this cause. We fully agree with him.

HÆMORRHAGE.—As hæmorrhage frequently attends dis-

charges of mucus, pus, and serum from inflamed parts, as the bronchia, liver, &c. it is considered by our author, as the topical effect of that increased momentum, forming a part of local inflammation. The same effect may happen from general plethora, as is shown by the bloody urine following scarlatina, and sometimes measles; forming, in scarlatina, one link of a series of effects, of which articular inflammation and dropsy often constitute other links. Here anasarca or ascites being vicarious with hæmorrhage, affords new evidence of the nature of dropsy, as discussed on a former occasion. Our author has more than once seen obstinate and extensive anasarca cured by spontaneous hæmorrhage. Active hæmorrhage is always accompanied with phlogistic diathesis, and when the blood is discharged from the nose or viscera, it appears to be arterial, either from ruptured arteries or open-mouthed capillaries.

Dr. Parry here mentions "a modification of purpura, exhibiting those appearances under the skin, which from their size and shape have been generally called petechiæ, maculæ, or vibices. They are usually flat, but sometimes considerably relieved above the rest of the skin. They are of different tints and shades of colour, from a pale red to a logwood purple, or even nearly the hue of a black currant. They do not become in any degree fainter from pressure, and are evidently ecchymoses or spots of extravasated blood. Their chief, but not only seat, is the upper or lower extremities. In most cases they have followed or accompanied pretty severe pain in the limbs, which has sometimes had the form of articular inflammation." P. 156.

Dr. Parry has published two cases in the 5th vol. of the *Edinburgh Journal*, and we ourselves have witnessed within these few weeks a similar disease, which embarrassed us much at the beginning.

A young gentleman, after a hearty supper of oysters, was seized next day with bilious vomitings, headach, and considerable pyrexia. The fever continued for several days, with great determination to the head, notwithstanding strong cathartics were daily administered. About the sixth or seventh day, he was seized with violent pain in the small of the back, and in the region of the kidneys; soon after which, an eruption, similar to that above described, came out on the lower extremities, accompanied with excruciating pain in the limbs, and great tenderness and irritability on the surface; fever and restlessness still continued; and the intestinal discharges were invariably dark-coloured and offensive. For three days, he took a grain of calomel and two of antimonial powder every three or four hours, which kept up a constant catharsis.

and finally carried off the complaint. The appearance of these petechiæ would, we presume, a few years back, or even among our Brunonian brethren of the present day, have given origin to a very copious exhibition of bark and wine, to correct the putrescency of the humours and the debility of the solids.

Hæmatemesis and hemiplegia are brought forward by our author; the latter he has seen rapidly follow a violent palpitation of the heart, and was occasioned by a large extravasation of blood into the medullary substance of the brain, under which the patient lingered several weeks. In these cases of hemiplegia, and in many other hæmorrhages, the patient is, to all appearance, in such a state of previous good health, that one can hardly suspect phlogistic diathesis, or attribute the accidents to any other cause "than simple excessive momentum, acting perhaps, on vessels previously disposed to be so affected." Hæmorrhages may arise from general excessive momentum alone, as an exciting cause. Thus globules of blood are sometimes seen mixed with the perspired fluid in the axillæ of young persons after violent exertions; strong exercise, late hours, close rooms, or exposure to the intense heat of fires or sun will produce nasal hæmorrhage, and the same is produced by hard drinking in older persons.

"Sanguinis a naso fluxum, fere lethalem, Juveni a coitu prima nuptiarum nocte sæpius repetito accidisse novi."

In respect to passive hæmorrhages, Dr. Parry seems a little puzzled, as there is seldom any indication of increased momentum.

"But if," says he, "a great degree of momentum be required to produce hæmorrhage in vessels little disposed, a slight degree will be sufficient in vessels which are strongly disposed. These, therefore, are the two states which constitute active and passive hæmorrhage." 162.

Dr. Parry regrets, that he has not seen a sufficient number of cases of sea scurvy, to enable him to decide whether, at a certain period of that disease, there be not excessive momentum that may ultimately produce those extravasations and passive hæmorrhages so characteristic of the disease. We have had extensive opportunities of seeing scurvy, and Dr. Parry's reflections on the subject have recalled to our minds many circumstances favourable to his ideas. We always observed, that the first symptoms of sea scurvy broke out among those who were addicted to drunkenness, laziness, and gluttony, all which undoubtedly tend to produce general or local plethora, with consequent hæmorrhagic dis-

charges. We observed, on the other hand, that after great exertions of body and anxiety of mind, any sudden disappointment, as the escape of a prize, the discomfiture of an attack, or the like, gave origin to a formidable list of scorbutics, which extended even to those of active, sober, and cleanly habits. This we conceive, was owing to the sudden atony of the *extreme vessels* invariably following the application of the *depressing passions* to minds and bodies bordering on exhaustion from previous fatigue, and very fairly accounting for the hæmorrhages and extravasation in question.

The petechial spots in typhus itself are usually the result of undue action of the heart upon skins suffering an accumulation of heat from various causes, as alcohol and other stimulating ingesta, and seldom appear where the treatment goes to regulate the balance of the circulation.

The varicose state of the saphena, giving origin to hæmorrhage, is often certainly the consequence of mechanical obstruction to the return of the blood; but in many other cases, a diseased state of the coats of the vein is more probably the cause of the morbid dilatation, and of the hæmorrhage.

On the subject of hæmorrhoidal discharges, Dr. P. declines speaking, but refers to the illustrations of Mr. Abernethy. P. 166.

Final Causes of Inflammation, Dropsy, and Hæmorrhage.

"In the preceding pages, an attempt has been made to show a coincidence of action or affection between inflammation, dropsy, and hæmorrhage, inasmuch as each of them is the consequence of excessive momentum of blood, whether relative or absolute."

These actions or affections of *the part* often remove the local malady, which in its turn frequently has a tendency to relieve the general momentum. Blood being the great stimulus to the heart's action, a certain fulness of the vessels, proportioned to the varying state of the system, is necessary for a due action of that organ. Thus excessive quantum increases, defective diminishes the action of the heart, as is evinced by the pulse in arterial and venous plethora following full living, "and the immediate change of that state by blood-letting." 169.

"These circumstances," says Dr. P. "render it probable, that one of the ends to be answered, in such cases, by the supervention of local inflammation, is, in various ways, to evacuate and soothe the constitution, which was before unduly stimulated by excessive vascular fulness." *Id.*

In this way we partly conceive the salutary influence of gout in constitutions subject to excessive sanguineous momentum, and how other local affections supply the place of gout, as erysipelas, and various cutaneous affections. So also, hæmorrhages and hæmorrhoidal discharges prove vicarious of the same disease; thus our author has seen a patient accustomed to vernal gout, and missing the annual fit, have *erysipelas*; the next spring, *hæmorrhoids*; the following spring, a fever, cured by blood-letting; each with equal relief to the constitutional symptoms. The same effect precisely (in his experience) has been produced by anasarca swellings of the lower extremities occurring at the gouty seasons. These circumstances then, show, that constitutional errors of circulation are alleviated by local inflammation, hæmorrhage, and dropsy. So also, increased action of the heart is relieved by dropsical effusions. Our author has seen a hectic pulse of 130 reduced in a few hours to 60, by the supervention of violent anasarca in the lower extremities.

“ I have, indeed, so often known constitutional maladies suspended, and life evidently lengthened and rendered more comfortable, by the coming on of various dropsical effusions; and, on the contrary, so many persons suffer aggravations of disease, or even death, very shortly after the spontaneous disappearance of dropsy, that I cannot avoid considering that effusion as a salutary process, rather than as an actual disease.” 171.

These pathological points are certainly of the utmost importance, both in a speculative and practical view, inasmuch as they direct or sanction modes of treatment so active as to be either essentially beneficial on the one hand, or highly injurious on the other.

The coincidence of hæmorrhage with dropsy is not frequent; but Dr. P. has seen a long-continued and large hæmorrhage from the lungs, accompanied with hydrothorax, anasarca, and ascites, with a pulse at 136, all relieved together, and the patient restored to health as soon as, by digitalis, the pulse was reduced to 40 in the minute. Although dropsy often appears a consequence of hæmorrhage, Dr. P. thinks that it is rather from the *cessation* of hæmorrhage. Where the *latter* is accidental, but in some degree habitual, the dropsy arises either from a similar cessation, or from too sudden nutrition, both of which produce excessive plethora, often resulting from the means employed to arrest the disease and restore the strength!

Simple Excessive Determinations, or Fulness of Blood.

This is a very long and a very important section in our excellent author's work, and must receive proportionate attention.

Every accurate practitioner must have observed, that long after the subsidence of *actual* inflammation, gout, &c. in parts, an increased momentum of blood, accompanied by pain, swelling, or serous effusions, remained. Pains of various other parts appear to originate in this increased momentum, producing excessive impulse on them when in a state of susceptibility; and hence idiopathic pain in the animal frame can only be accounted for in this way (independent of "*inexplicable nervous sympathy*") "since pressure, bruising, tearing, cutting, stretching, suction, and probably all chymical operations, are mere modifications of that power." 178. One principal, and almost only objection to the doctrines of Dr. Parry, is a total neglect of the *nervous system*.

"He utterly, and for ever, disclaims all reliance on the *neurological* systems of pathology hitherto extant. He considers them as founded on principles which are either visionary or inapplicable, and which lead to practices tending equally to debase the moral character of mankind, to produce or perpetuate disease, and to discredit the medical profession." Preface, v.

This is too severe, and perhaps unjust. The *nervous system* must not be overlooked in pathology; for we are quite convinced, from attentive observation and reflection, that whether primarily or secondarily affected in disease, it plays as important a part as the vascular system; in short, that the *two systems* are so mutually dependent on, and connected with each other, that our views must be constantly directed to both, if we wish to practise with discrimination and success. But to return to our author.

"Pain itself has a tendency to diminish the action of the heart, and therefore that increased momentum or fulness of blood which produced it." 178.

Does not this very sentence of Dr. Parry's admit the mutual connexion we have been insisting on? Dr. Parry justly remarks, that we often see swelling, increased heat or redness, and occasionally all three, without actual inflammation, though these are the common characteristics laid down by Nosologists. Since, however, the two states vibrate backwards and forwards into each other, so that what is one day a *determination* to a part, will the next be *inflammation*, there is evidence of one common condition in the two cases.

These determinations produce different effects in different structures. In the serous and cellular textures, inflammation or effusion is very generally the result. Effusion, in some places, assumes peculiar appearances; viz. in the uvula, a semi-transparent elongation and swelling, &c. when the increased determination is to the skin, heat, redness, and perspiration follow. Although a determination of blood to the nose from drink is frequently *coexistent*, Dr. P. thinks it not at all *connected* with hepatic affection, as suspected by Darwin and others. Dr. Parry here alludes to various anomalous, and indeed unaccountable pains and swellings, short of inflammation, which affect different parts of the human frame. Among these, we may instance that tenderness of the soles of the feet during the intervals of gout; those pains of the hypochondria in nervous females; the pain and soreness of the head in the same description of people, which Dr. Parry, perhaps with much truth, asserts to be peculiarly difficult of relief "under the false theory which dictates the usual treatment." 185. Another example is furnished by the rather sudden, and painful swelling of one or both *mammæ*, alternating frequently with disorders of the head, and unconnected with that uneasiness or tumefaction preceding the menstrual periods. Our author has often seen "enlargements of the uterus with a sense of weight and bearing down, and sometimes with various discharges," yet unattended with fever, or any evidence of local inflammation, frequently disappear, either spontaneously, or under medical treatment. The knowledge of such circumstances ought to make us guarded in our prognosis on such occasions, since it is generally of an unfavourable kind. The prostate and other glands often undergo enlargement without inflammation or scirrhus. The most remarkable disposition to enlargement without inflammation is evinced in the thyroid gland, constituting goitre or bronchocele.

"I have so often seen this swelling follow diseases of the heart, and other maladies, more especially those called nervous, such as epilepsy, &c. in which the blood is propelled, with excessive momentum, to the vessels of the head, and yet at the same time have observed such sudden augmentations and diminutions of the swelling that I have suspected the gland itself to be intended as a diverticulum for blood disposed to flow with too great force to that important organ, the brain. 188.

Whether or not it be an accidental concatenation we know not; but in two decided cases of cardiac enlargement, now under our care, the thyroid gland is considerably enlarged. The liver and spleen are well known to suffer enormous tur-

gescence, especially during the cold fits of ague, without inflammation, or any bad consequence. The vascular system of muscular parts also exhibits, on many occasions, these signs of turgescence; as, for instance, in the lower extremities previous to gouty paroxysm, &c. Speaking of those palpitations of the heart which so frequently affect females, when either chlorotic or labouring under strong nervous complaints, and which are excited by any muscular exertion, Dr. P. observes, that "the beating of the heart is usually felt at such a distance from its natural place, and there is often such a difficulty of lying on either side, that one cannot help concluding the heart to have suffered considerable enlargement."

"In such a case," says he, "I have known absorption of two of the ribs carried to a considerable extent; and pressure with the finger on the heart, through the yielding spot, produced great anxiety, and immediate disposition to syncope. Yet this patient recovered, and now enjoys tolerable health, thirty years after the period of my attendance." 191.

We quote this authentic and extraordinary instance, to show that cardiac diseases should not be considered in quite so melancholy a point of view as they generally are; because we are convinced, from experience, that much may be done by regimen and medicines, even in the worst cases.

Few textures are more liable to increased determinations than mucous membranes, being exposed from situation to the constant influence of chymical and mechanical causes. Inflammation of these membranes is sufficiently common and sufficiently understood; but medical writers have not noticed, "that a state of excessive determination of blood to this membrane, (that of the nose,) though *without inflammation*, gives rise to some very common and important disorders." 195. Dr. P. has seen many instances of violent coryza without the least evidence of inflammation; sometimes by passing into a hot room—one by the internal use of hyoscyamus,

"In patients who are subject to spasmodic asthma, fits of that disorder often begin with a violent coryza, in which the eyes become red and watery, and all the symptoms of a cold in the head are observable. After a few days, or even hours, these symptoms suffer some degree of alleviation, and the malady proceeds to the bronchia, occasioning all the well-known symptoms of spasmodic asthma. What, then, is this state in the bronchia, but an affection of the mucous membrane of those cells, exactly similar to that which had previously existed in the same membrane in the nose?"

We think this a valuable observation. If it be said that

asthma is a spasmodic affection depending on causes acting on the mind, &c. and periodical, Dr. P. answers, that the sense of suffocation in hydrothorax, and certain diseases of the heart, returns also at regular periods; while affections of the mind produce, aggravate, and renew gout, acute rheumatism, hæmorrhage, and various other disorders to which no one thinks of assigning the name spasmodic. Again, what is termed *spasmodic asthma* is brought on by almost every thing that increases the action of the heart, and stimulates or fills the vessels of the mucous membrane itself; as intense heat, lightness of the air, exercise, full meals, stimulating drinks, certain effluvia—as those of hay, sealingwax, ipecacuanha, &c. whilst it is relieved by open bowels, heavy air, cold inhalations, and cooling drinks; diminishing as soon as a mucous secretion, or spitting of blood, relieves the turgescence of the vessels. These facts, Dr. P. thinks, are convincing proofs of such a preternatural fulness of the vessels of the mucous membrane of the bronchia, as impedes free inspiration, and produces all the symptoms of *spasmodic asthma*. There can be little difficulty in understanding how a vascular fulness of the bronchial mucous membrane should produce dyspnoea by mere mechanical diminution of the tubes and cells, when a similar affection of the same membrane in the nose renders it sometimes absolutely impossible for us to respire through the capacious opening of the nostrils; and hence the absurdity, says Dr. P. of assuming asthma to be a nervous disease, produced by a *spasmodic* constriction of the air tubes.

This discussion on asthma clears the way for a knowledge of various other affections of mucous membranes, hitherto improperly termed *spasmodic*. Thus those strictures in the urethra, which are frequently influenced by mental causes, are probably owing to a turgescence of blood rather than to spasm.

Dyspepsia, Dr. Parry thinks, is a morbid fulness of vessels in the villous coat of the stomach, for the following reasons:—1st. Its symptoms are those of increased sensibility; (which is usually attended with, or produced by, vascular fulness) thus this organ suffers from a quantity of food that in health would produce no uneasiness. 2d. The cardialgia evidently arises from increased turgescence of blood. But here we would ask, how is it, that carbonate of ammonia and other stimulants are the surest means of relief in such cases? 3dly. When vomiting occurs in dyspepsia, when the stomach is void of food, the ejected fluid is merely an unusual quantity of the natural mucous secretion. 4thly. All the symptoms of dyspepsia, as flatus, heartburn.

&c. exist in the greatest degree, in those cases which are followed by vomiting of blood, and are relieved by that discharge till a similar congestion of blood again takes place in the vessels of the stomach. 5thly. As females with obstructed menses are peculiarly liable to this state of dyspepsia, with bloody vomiting, so those who are regular in their catamenial discharges, suffer much less from dyspeptic symptoms *during* those periods, but relapse again in the intervals. A greater degree of this excessive determination then, would probably bring the malady within the limits of inflammation; instances of which, the author thinks he has seen. If, then, idiopathic dyspepsia be excessive vascular fulness of the villous coat of the stomach—if this may be produced by mental affections, and occasionally run within the limits of inflammation, we may conceive the process by which mental affections may be followed by scirrhus, and subsequent ulceration; also, why the same may be produced by spirituous liquors, and mechanical injury. This discussion on dyspepsia may throw some light on the formation of strictures in the intestines, and also in the œsophagus. In common diarrhœa, an excessive determination of blood to the villous coat of the intestines probably takes place for the purpose of expelling the offending matter.

“I have,” says Dr. P. “seen vehement evacuations of this kind continued, by strong purges, for months, and even years; and yet, after death, dissection showed the entire villous coat of the greater part of the intestinal canal still preternaturally turgid with blood.” 210.

We do not doubt it:—the “strong purges” were sufficient to keep up a very constant determination to the bowels; but might not the plethora have been diverted to the skin in such cases, by diaphoretics? or, obviated by abstinence and venesection? This is corroborated by Dr. Parry himself.

“In a boy, seven years of age, there were such motions as I have described (copious and loose) with fever and almost total insensibility. He had, in vain, for sixteen days, tried all the most approved *aperients*, when *six ounces of blood* from the temporal artery, and repeated next day, immediately brought the stools to their natural state, and the patient to convalescence.” 211.

Dr. P. gives us some interesting remarks on those pulsations which we sometimes feel in the abdomen, occasioning apprehensions of aneurism. In all persons not very fat, the pulse of the aorta can easily be felt, while lying on the back, if strong pressure be made a little to the left of the median line, about half way between the navel and scrobi-

culus cordis ; in some instances, the pulsation is painfully perceived by the patient himself. In many cases of this kind, particularly in nervous patients, this sense of pulsation is merely the effect of preternatural action of the heart ; in others, of the pressure of some hard substance on the descending aorta, determining a disproportionate quantity of blood to the head, "and giving to the hand placed on the abdomen, and sometimes even to the eye, the appearance of a beating so near the surface, as to lead inexperienced observers to conclude that the aorta is morbidly dilated." We are not ashamed to say, that we were once deceived in this way, and our prognosis turning out so wrong, has made us extremely careful since, in ascertaining the true state of the parts. The most common causes are collections of fæces in the colon, requiring repeated and active purgatives, which must bring away almost incredible discharges of stercoraceous matter before the aortal pulsation subsides.

In many cases of dyspepsia, the affection of the stomach is only secondary, while the primary disorder exists in the colon ; the villous coat of which seems to be affected with morbid sensibility, unspeakable uneasiness, burning heat, and all those other circumstances which have been described as occurring in the stomach. This state frequently runs into inflammation, and lays the origin of strictures in that intestine.

Fluor albus and gleet are brought forward by Dr. P. as also affording examples of simple excessive determination of blood to mucous membranes. To this is attributed a common species of deafness, described by Dr. James Sims, and usually called nervous, depending on obstruction of the Eustachian tube.

"The patient can hear well when the tube is distended, by strongly blowing, with the nose, mouth, and cheeks closely shut."

Our author has known it removed by the supervention of hepatitis, and of hemiplegia ; returning as these diminished ; also entirely to cease, in two instances, forty-eight hours before death ; and thirdly, completely cured for more than a year of the remainder of life, by an accidental hæmorrhage from the humeral artery.

The following are instances of increased determinations of blood producing secretions or excretions, morbid or natural. 1st. Spontaneous inordinate ptyalism is often produced by the influence of the mind, for it is frequently the result of an excessive attention to the discharge, or constant attempts to

eject it, under the erroneous impression that it is excrementitious. Diabetes will probably be admitted as the effect of an excessive determination of blood to the renal arteries, since the secretion of urine is preternaturally increased; and dissection shows, that the kidneys are preternaturally vascular.

The turgescence of the genital organs in man and in animals is adduced by our author as an illustration of salutary, or at least natural determination of blood to certain parts, intended to be followed by increased secretion or excretion. So are the menstrual periods in women, which are generally preceded by pains in the loins, owing, in a great degree, to turgescence of the hypogastric arteries, and which disappear when the natural discharge is fully established.* The progress of sanguineous momentum is beautifully illustrated by the phenomena of ephemeral fever. Here, at the commencement, the skin and extremities are cold, pale, shrunk, and in some degree benumbed, while the pulse is weak and soft. By degrees, as the action of the heart increases, the impetus of the blood is augmented, first to the head, and then to the trunk. At length, the extremest parts feel the influence of the vital current, and then perspiration breaks out as after violent exercise, diminishing the impetus, and bringing relief to all its effects.

* In a former note we alluded to the power which the heart possesses of forcible dilatation, as well as contraction. The same power may be extended to the vessels also. If, through the influence of the mind and the nerves, for instance, the vessels of the genital organs exert their dilative powers, an increased afflux of blood must necessarily rush to those parts, although it is generally, and we think falsely, considered a *determination* of blood by some power *à tergo*. But, as we have often said, the heart can have no elective power to distribute more blood to one part of the system than to another—it must all depend on the state of the vessels themselves. The vessels of the cheeks, in mental emotions, exemplify this principle; and so do the vessels of any part of the surface if chafed or heated. Their dilative or erectile powers are called into action immediately, and they swell with blood independent of any alteration in the action of the heart or trunks leading to the parts. The above states we would consider active or *erectile* states of dilatation, in contradistinction to those *passive* dilatations resulting from debility of the vessels of the part. Here they are, in fact, dilated for want of their due proportion of tonic power, as where a part is bruised, burnt, or otherwise debilitated. There can be no doubt, also, that excessive action of the heart, by producing an increased impetus or momentum throughout the whole vascular system, must very frequently cause disorder of particular parts, which may have been previously predisposed to disease, and thus induce all the phenomena of “local determination,” as it is called. Keeping this *modus operandi* in view, we think Dr. Parry’s facts are exceedingly important, and the result of most accurate observation.—*Rev.*

The same process frequently occurs to one part, or certain parts only, of the body, as the arm or both legs, which go through regular fits of what may be termed ague, beginning with preternatural coldness, and proceeding through excessive heat to termination by sweating. Of this progress of increased impetus, there is, in many women, an exemplification during menstruation.

"One or two days previously to that period, they suffer a violent pain and weight in the head, accompanied with flushing and heat of the forehead and cheeks, occasionally with sickness. In this state the pulsation of the carotids is strong; the feet are often cold, and the general symptoms are those of slight sick headach. In the course of one or two days, the headach becoming better, the back and loins begin to suffer aching pain; and this is a prelude to the natural discharge, which in a few hours appears; and then, the feet having previously become warm, all the uneasy feelings soon vanish." 223.

Nervous women often suffer sudden determinations to the skin of the face, and sometimes the greater part of the body. It is attended with a flushing and great heat of the skin, and in an instant succeeded by sweating; after which, the skin becomes cold, and the action of the heart is diminished, often in an undue degree. In the latter case, some faintness ensues. All the steps of the process are performed in a very rapid manner, and are called by the vulgar, in the author's part of the country, the hot blooms.

Dr. Parry hazards a conjecture, that fungus hæmatodes itself is occasioned, or at least accompanied, by an increased momentum of blood determining its specific nature.

We shall pass entirely over two sections in our author's work—one on the structure and functions of the Nervous System; the other on the Mental Faculties. In the *first* are many accurate and ingenious anatomical remarks, though we think he has eulogized rather too highly Messrs. Gall and Spurzheim. In the second, there is much acute reasoning, and much good sense. The following paragraph we extract:—

"Although, however, sensations, and thence the ideas which grow out of them, are the materials from which we think, judge, and act, it is evident that they would little avail us, were there not *superadded* that capacity of *employing* them, which constitutes the faculties, by the degree or nature of which man is chiefly distinguished from other animals." 278

THE NERVOUS CONSTITUTION. The comprehensive term "*nervous*" has been applied to almost all inordinate movements of the parts concerned in the functions both of the

animal and organic life, and to nearly all morbid states of sensation. This constitution shows itself by an extraordinary degree of sensibility and irritability; in consequence of which certain impressions that, in a well-adjusted constitution, are either indifferent or pleasurable, produce pain, inordinate actions, or both. Those who, from the habit of self-indulgence, the vicious compliance of parents, the indolence and luxury of wealth, or sedentary occupations, are exempted from the irritations and pains of body and mind, which Providence has made essential to our well-being in this probationary state, are the certain victims to this Proteian malady! The same causes produce nearly the same effects on various animals under the subjection of man.

As simple sensations become less acute by frequent excitement, we may readily conceive, that the causes which predispose to the nervous temperament, act immediately on the brain itself, as the ultimate organ of sensibility. It is true, that many parts of the organic life, as the heart, alimentary canal, &c. become inordinately irritable in nervous constitutions, but even here, we find, that the influence of mental impressions, acting through the brain on these various parts, is greatly lessened by the mere repetition of the irritation; so that a boy who starts with terror at the report of a gun, will, after having been a few weeks in the naval service, himself fire a cannon without the smallest trepidation.

Although original conformation may predispose individuals to be more or less easily acted on by the various causes of excitement, yet it is questionable whether this state of morbid excitability, from long exemption from the causes of excitement, would reach that extent of disease which we see in the nervous temperament without the co-operation of some other cause.

"I think," says our author, "that such a concurrent cause does actually exist; and that this cause is excessive impetus of blood, acting on the medullary substance of the brain, or some other part of the encephalon." 292.

It must also be kept in mind, that increased impetus of blood not only excites actual disorder, but disposes the brain to be more easily acted on by other causes of irritation than if that excessive impetus of blood did not exist. And as this excessive determination to the brain does not, for the most part, produce its morbid effects until it has continued for some time, it is reasonable, thinks our author, to suppose, that this impetus is itself capable of aggravating or causing that inherent state of the brain termed original predisposition to excessive excitability. 294.

"If this be true, we may, perhaps, profitably carry our investigation one step farther, and inquire, whether the whole of the predisposition may not, in all cases, be formed through the medium of the *sanguiferous system*; so that the exemption from impressions, &c. above stated, as a cause of such diseases, may itself produce its primary influence on that system, while the brain may suffer only secondarily; but in its turn, react on the sanguiferous system. Thus for the sake of illustration, let us suppose, that, from indolence or other causes, the heart has acquired an excessive morbid irritability. In this case, any impression communicated to it from the brain, may excite in it inordinate action, which determining the blood with excessive violence to the brain, may cause it to react on various other parts, and thus produce the phenomena of nervous disease." 295.

Dr. Parry, so long back as the year 1788, attempted to prove that nearly all the modifications of nervous disorders originate in excessive momentum of blood in the vessels of the brain.* He there showed that excessive sensibility in regard to external impressions, headach, vertigo, spasmodic dyspnœa, hiccup, general convulsions, and delirium, might be, for a while, wholly removed, or greatly mitigated, by compression of the carotid arteries. He asserts, that subsequent experience has added irresistible force to the above conclusion. Our author illustrates his pathological views by numerous apposite facts and observations. Thus the pulsation of the carotids in nervous persons, and in the nervous states of those persons, is preternaturally strong. The head is usually much hotter, and the face redder than in a state of health. *Insomnium* is brought on by excessive bodily or mental exertion, by anxiety, late hours, hot rooms, spectacles that strongly arrest the attention, frequent succession of objects which dazzle the eyes, &c. It is usually accompanied with cold feet, preternatural action of the heart, and throbbing of the carotids.

"Under these circumstances, sleep has been, on numerous occasions, induced by lying on one side, and making with the thumb a firm compression on one carotid artery."

Those strange noises which nervous persons are accustomed to hear, are supposed by our author to be occasioned by "the rush of arterial blood through some part of the vascular system of the ear," as they are apt to be produced by whatever increases the action of the heart, as hot rooms, late hours, long watching, strong drink, violent muscular exertion, excessive mental attention, &c. and are diminished

* *Memoirs of the Medical Society of London*, vol. iii. p. 77.

by all these causes which have a contrary tendency. When the rushing sound is waving or alternate, which it often is, it is exactly synchronous with the systoles of the heart. Our author has always been able to remove it entirely, *pro tempore*, and always to alleviate it, by compressing the carotid of that side. Nervous headaches, whether affecting the external or internal part of the head, are owing to corresponding conditions of the circulation in the *external* or *internal* carotid. That which occurs from dyspepsia, or disordered peristaltic motion of the intestinal canal, is usually of the *first* kind, often extending itself to the muscles of the neck, accompanied with flushing of the face, strong pulsation of the carotids and their external branches. It may be relieved by strong pressure on the common trunks, in consequence of which, the peristaltic movement of the alimentary canal is often increased, the heat of the head is diminished, and the feet, if previously cold, become warm. The *SICK HEADACHE* exemplifies that which arises from excessive determination of blood to the branches of the internal carotid. It is generally attributed to derangement in the liver or alimentary canal; but our author conceives that the state of the stomach is the *effect* not the *cause* of the malady in the head, which it *never precedes*, just as sickness and vomiting are the consequences and not the cause of the affection of the head, produced by a blow on the cranium.

"Accordingly, the sick headach may be cured or relieved by spontaneous bleeding from the nose, or other similar remedies applied to the head; but is not alleviated by purging, and is always aggravated by the stimulants which relieve dyspepsia."

Vertigo and epilepsy are explained on the same principles. The latter, says Dr. Parry, "whatever may be its primary causes, usually depends immediately on excessive impetus of blood in the vessels of the brain." Thus the symptoms of epilepsy are more or less of a convulsive, or even strongly contracted state of various muscles—chiefly those of the eyes, face, tongue, neck, throat, upper extremities, and respiration, accompanied with loss of sense, and followed by stupor. Those parts are chiefly supplied with nerves from the encephalon, whose functions are greatly disturbed. The suddenness of the attacks, and the perfect intervals which exist between them, imply the operation of a fluctuating cause, which we cannot conceive to be any other than one of those sudden changes in the balance of the circulation which we continually see occurring in the sanguiferous system. When it occurs at an advanced age, it chiefly attacks those who have long been constitutionally nervous,

or who have lost the accustomed excessive sanguineous determinations of gout, hæmorrhages from the nose, hæmorrhoids, ulcers, eruptions, &c. and in all these cases, the pulse in the carotid arteries is habitually stronger than natural. Lastly, it often terminates in, or is exchanged for sanguineous or serous extravasation in the brain, and consequent hemiplegia or apoplexy. Epileptic attacks are more or less prevented by whatever habitually diminishes the excessive action of the heart, or lessens the flow of blood to the head.

“ Thus it is often superseded by gout. In more than one instance, the paroxysm has been removed by the affusion of cold water; and in others, by compressing the carotid arteries.”

Dr. Parry very justly observes, that where epilepsy arises from exostoses or other local diseases in the cranium, even here, the disease still attacks only in paroxysms; hence, the *local* disorders act merely as causes of predisposition, requiring for their production of the fit the coincidence of those causes which manifestly operate by increasing the impetus of blood to the head. But it may be doubted, whether these local derangements of structure also are not attributable to the same vascular impetus.

Convulsions are next adduced by Dr. Parry, as resulting from the same cause; and in fact, as a modification of epilepsy. Chorea is also considered by our author to be frequently dependent on the same cause, as are hysteria and hypochondriasis. At page 346, Dr. Parry gives an explanation of what he means by particular determinations. He admits, (and we fully coincide with him) the existence of excessive *local* momentum without excessive *general* momentum.

“ Thus I have many times known the pulse in the *temporal* artery so weak that blood would not flow from it, however well it was punctured; and other instances, in which it was too weak to be felt; and yet, in all, the pulse in the carotid artery has been extremely strong, and there has been the most decisive evidence of preternatural *impulse in the brain*. If, therefore, such a difference of impulse can exist in two sets of vessels derived from the same trunk, and so near to each other, we may readily conceive the internal branches and the capillaries arising from this artery, to be, on other occasions, sufficiently full to produce all the symptoms, *without any increase of fulness in the trunk of the carotid*.”

Hydrocephalus is another disease brought forward by our author, as exhibiting proofs of increased impetus to the brain; and also apoplexy. He thus concludes:—

“ From the foregoing relation of facts, I think it clearly appears, first, that a large proportion of nervous affections originates in a

disordered state of the circulation with regard to the brain ; just as inflammation, hæmorrhage, and dropsy, and the various other maladies, which I have specified, arise from similar states of the circulation in other parts ; and secondly, that this state is either relative, or absolute excess of momentum, impetus, or determination of blood, in some portion of the arterial system, of the part affected." 358.

Our own observations have long led us to conclusions nearly similar.

Speaking of *tic douloureux*, Dr. P. observes—

"All the circumstances induce me to attribute this pain to increased vascularity or determination of blood (perhaps amounting to inflammation) to the neurilema, or vascular membranous envelope of those nerves."

He thinks that the operation of cutting the nerve (performed by Dr. Haighton) was rather the division of the arterial branch supplying the affected ramification of the trigeminal nerve, than the division of that ramification itself.

A very interesting section follows, on "one common origin of diseases;" from which we shall extract as much as our narrowing limits will allow. As it is acknowledged that one family is more liable than another to scrofula, another to gout, a third to eruptive complaints, a fourth to mania, &c. so in different individuals of the *same* family there is a resemblance of modification in the several affections, proving them to be only varieties of the same common stock. Thus, in regard to the *head*, he has known one person maniacal ; a paternal cousin hæmorrhagic and epileptic ; and almost all his children subject either to epilepsy, headach, epistaxis, or hydrocephalus*. In another family, the mother was *epileptic* ; a son laboured under excruciating *headachs* ; a daughter died of *hydrocephalus*. Of two sisters, one had *eruptions* on the face ; the other, flushing *heat of head*, with nervous affections. Of two other sisters, one died (adult) of *hydrocephalus* ; the other had *headach*, *hysteria*, and *erysipelas*. In another family, a female had *epistaxis* ; her sister had *nervous symptoms* ; and two brothers were *maniacal*.

The extension of these diseases in different forms, and therefore under different names, to different parts nearly at the same time, is very interestingly illustrated by Dr. Parry.

* Our readers will see the coincidence between Drs. Parry and Prichard on these subjects. Indeed there are few good pathological doctrines of the present day which may not be found in Dr. P's work.

Many diseases appear to extend, by being joint affections of different or even remote branches of the same arterial trunks. Thus Dr. P. saw a man who, with violent rheumatic inflammation in the right shoulder, had a pulse in that wrist, considerably fuller than in the other; that arm and hand were also hotter, and disposed to sweat, while the other was quite the reverse. When determination of blood takes place to the *bowels* in diarrhoeas, &c. the muscles of the *thighs and legs* are often affected with pains, cramps, &c. and the feet are burning hot.

“During a gouty diathesis, a brisk purgative will often produce acutely inflammatory gout in the knees or feet.” 372.

The purgative produces, we suppose, increased determination in the mesenteric and hypogastric arteries, and ultimately in the arteries supplying the lower extremities. Determinations of blood to the uterus, on the same principle, produce pains in the loins, groins, and down the thighs. These examples may suffice. Several curious examples of the “relation of diseases by remote changes” are adduced, of which we shall select a few.

Examples are very common where the same patients shall have, at different periods, hæmorrhoids, headach, vertigo, erysipelas, gout. Others, where a constitutional tendency to these will end in epilepsy, hemiplegia, or apoplexy. In one patient the succession was, gout, mania, and at last fatal epilepsy. In several instances, fits of epilepsy superseded gout. In a gentleman, an intemperate liver, gout, to which he was long subject, ceased, after an abscess with great discharge from the neck. In a gentleman, the cessation of gout was followed by cough, difficulty of breathing, anasarca, defective urine. These being cured, he was seized with a loss of sense, unattended by convulsions. He recovered, and was affected with apthæ all over his mouth and throat. No sooner was he recovered from this, than the original disease, gout, returned, and became regular. Another patient had atonic gout, with quick pulse; defective, high-coloured urine; legs and thighs enormously swelled; and such a difficulty of breathing, apparently from hydrothorax, that for forty nights he had not even attempted to go into a bed; yet in a few days, by appropriate remedies, he lost every symptom of disease. And now a spontaneous and acute fit of gout came on, which terminated in perfect health. A lady, habitually subject to diarrhoea, fell into a state of costiveness. Some months afterward, she was suddenly seized with giddiness and headach, accompanied with fever, followed by almost apoplectic insensibility, great heat

of the head and face, with other symptoms of erysipelas. These disappeared after three or four days, and she returned to her former state of costiveness. Five months afterward, pain and giddiness in the head, with erysipelas on the left side of the face, again occurred. And now there came on, by degrees, hemiplegia of the left side, together with loss of speech.

CONVERSION OF DISEASES. This Section is so extremely interesting, that we shall endeavour to condense as much as possible of it for our readers.—1. In a gentleman, the pain of a node on the shin alternated with vertigo and a sense of numbness in the head. 2. A headach, of some years' duration, subsided, and was followed by a cough, and incessant wasting hectic fever. After the man had been long confined to bed, and death was every day expected, the headach began slightly to return; and as it became established, the cough and fever subsided. 3. During vertiginous and other distressing complaints of the head, carditis twice or thrice occurred and suspended them; they immediately returned as the carditis abated. 4. Slight paralysis of the hands alternated with spasmodic asthma. 5. Vertigo and hæmorrhoids very commonly alternate.* 6. In a gentleman, vertigo and headach were constantly relieved by œdematous swellings in the legs and feet. 7. In a lady mania, ending in suicide, alternated with; œdema of the ankles. 8. Fits of spasmodic asthma alternated with gout. 9. A gentleman lost epilepsy on being attacked with gout, a paroxysm of which was immediately followed by a sudden attack of asthma, which proved fatal in twenty minutes!

10. "On the other hand, various diseases of the head, as headach, vertigo, depression of spirits, mania, epilepsy, and apoplexy, in many instances, immediately or soon succeed the recession of inflammatory gout from the extremities." 382.

Let this be a caution to Dr. Kinglake, who endeavours to browbeat every proof of the fatal effects of his favourite remedy: Vide *Med. and Phys. Journ. passim*.

11. Recession of gout in a clergyman was followed by slight hæmorrhage from the rectum; which ceasing, fatal epilepsy supervened. 12. Epilepsy was superseded by pneumonia. 13. Vomiting of blood and mania alternated. 14. Bronchocele disappeared during hepatic inflammation. 15. Long-continued cough, hectic fever, emaciation, and night-sweats, ceased spontaneously on the breaking out of an ulcer on the scapula. 16. Orthopnoea, and cough, of many years

standing, suffered a sudden and violent aggravation. Œdematous swellings of the lower extremities and scrotum, with scanty urine, removed the orthopnoea entirely. After some weeks, the urinary secretion returned to the natural quantity, and the œdema vanished. Mental alienation now gradually succeeded, and, in a few months, gave way in its turn to asthma, which continued during the remainder of the gentleman's life. 17. The alternation of cutaneous eruptions with dyspepsia is well known. 18. That of the same disorders, with asthma and other forms of dyspnoea, has, in Dr. P.'s experience, been full as frequent, and much more important.

19 "I have often," says Dr. P. "seen various thoracic affections, as pulmonary consumption, asthma, carditis, or hydrothorax, arise from the spontaneous or artificial cure of ulcers, perpetual blisters, or fistulae." 386.

It has lately been the fashion to ridicule these things; but we would seriously recommend the inexperienced and unobservant practitioner to ponder on the foregoing deduction from long experience.

20. Gout and erysipelas alternate. 21. An instance, where long-continued symptoms of apparently pulmonary hectic were entirely removed by a frequent and copious nasal hæmorrhage, which disease itself ultimately proved fatal. 22. Cough and bloody expectoration ceased on the super-vention of œdema in the lower extremities; but returned, in a fatal degree, when the œdema vanished. 23. Many instances where extensive œdema ceased from violent spontaneous hæmorrhage. 24. Chronic bronchitis, or asthma humidum, is frequently relieved by œdema in the lower extremities. 25. A gentleman spat blood copiously every day for twenty years, during which he abstained from animal food and strong drink. Attempting to return to animal food by slow degrees, he had, in one year, four attacks of inflammatory fever. These were succeeded by vehement palpitation of the heart, which frequently returned during several years. They ceased on the super-vention of cough and copious expectoration of mucus. After some years, the cough and expectoration disappeared, and were succeeded by dyspepsia and the original palpitation. These gave way to remedies, but were immediately followed by hæmoptoe. From this period, during the remainder of his life, which was extended to 80, the three states, of mucous expectoration, hæmoptoe, and palpitation, alternated with each other; but no two of them ever existed together. 26. Habitual cough, dyspnoea, expectoration, and deafness, were nearly cured by hemiplegia, but returned as the hemiplegia was

relieved. 27. Habitual cough and expectoration were suspended by rheumatic pain on one side of the head, and returned as the latter disappeared. 28. Two instances occurred where the cessation of pleurisy was followed by peritonitis. 29. In several cases, pleurisy was converted into fatal inflammation of the cerebral coverings. 30. A gentleman was, for many years, so harassed by difficulty of breathing, cough, and copious expectoration, that he could scarcely ever lie down in bed. On his being seized with a painful erythema on the scalp, followed by deep sloughs, and accompanied with fever, the pulmonary symptoms entirely ceased. As the sloughs grew well, mania supervened; but, after a short time, was cured by low diet and depletion. From this time he remained free from complaint. 31. The disappearance of scarlatina is well known to be followed occasionally by bloody urine, arthritis, œdema of the extremities, ascites. To these may be added convulsions and epilepsy, both of which Dr. P. has seen. 32. A lady, for several years, had itching and smarting of the anus, with slight serous or mucous discharge. These disappeared, and were succeeded by violent catarrhal affection extending to the Eustachian tube; and when worst, to the bronchia, producing great stricture without cough. These symptoms continued long, and on the return of the affection of the anus disappeared. 33. A gentleman, who had long laboured under vomiting, was no sooner cured of it, than he became anasarcaous. A spontaneous purging coming on, the anasarca disappeared. 34. Hæmorrhoids and rheumatism alternated.

35. "A gentleman had the following succession of maladies: Gout, often alternating with enteritis, followed by apoplexy and hemiplegia. The latter complaints were relieved. Then occurred enteritis, and in its place, an almost total want of the secretion of urine, without fever. This last symptom was succeeded by gout, which gave place to fever, attended with erysipelatous inflammation of the stomach, and fatal sanguineous vomiting, during which the urine was restored to its natural colour and quality." 392.

36. A girl, aged eight, had long a mucous discharge from the vagina. This ceased, and the eyelids became inflamed. The latter malady disappearing, the former returned. 37. A lady, who, for many years, had been afflicted with cough and difficulty of breathing, was immediately and permanently cured by a large hæmorrhage from the humeral artery. 38. An old man, who had lived freely, had a chronic inflammation in one leg, accompanied with œdema. Both were greatly relieved by the application of a tight bandage. In a few days he was seized, for the first time, with epilepsy. 39.

A young chlorotic lady had extensive œdema of the lower extremities. This was removed by bandages, when she was immediately seized with a painful affection of the right side of the head, which was always much relieved by a flow of tears from the eye of that side.

40 "A girl, seventeen years old, had a chronic ulceration of the foot. No sooner was this cured, when she was seized with a disease and enlargement of the heart, which proved fatal."

41. In a lady, colica, pictonum, with palsy of the hands, not arising from lead, were cured by the Bath waters. Four years afterward, she had sciatica for five months. Stimulating friction immediately relieved the pain, but, in a few hours afterward, was followed by a return of the colic, succeeded by palsy of the hands as before. 42. A gentleman had habitual excessive perspiration, which was cured. Immediately he became affected with hydrothorax, anasarca, and ascites; all of which, however, were happily removed by digitalis.

43. "In two cases, which occurred between twenty and thirty years ago, immersion of a gouty foot in cold water, which produced instant relief of the pain, and a proportionate abatement of the inflammation, was, in a few hours, followed by hemiplegia." 396.

Let Dr. Kinglake explain away these facts by a quibbling jargon of unintelligible reasoning! We again refer to his papers in the *Med. and Phys. Journal* for an apology for the harsh expressions here used: but we cannot suppress our indignation when we see human life sported with to support a theory. Dr. K. seems to think, that the generality of practitioners adopt his treatment in gout. We appeal to the knowledge of every individual of the faculty, whether one in fifty of his acquaintances ever dreams of following Dr. Kinglake's plans.

Dr. Parry sums up the effects of *increased* momentum of blood in the following manner, viz.

"First, excessive determination or momentum of blood to the skin, produces—sweating, scarlatina, measles, erythema, erysipelas, and all the forms of eruptive diseases. Secondly, *to mucous membranes*; coryza, catarrh, whooping-cough, croup, sore-throat, peripneumonia notha, catarrhus senilis; bronchitis, asthma; apthæ, dyspepsia, diarrhœa; and various other disorders of the villous coat of the alimentary canal; strictures in the urethra, œsophagus, colon, and rectum; gleet; fluor albus; catarrhus vesicæ. Thirdly, *to serous membranes*; phlegmon; pleurisy; pericarditis; peritonitis of different parts, constituting enteritis; puerperal fever, &c. inflammation of the tunica vaginalis testis.—*To synovial membranes*: producing arthritis; together with the effects of these

several states, anasarca, hydrothorax, hydropericardium, ascites, hydrocele, effusions into joints, adhesions, anchylosis, &c. &c. Fourthly, *to various other membranes*; of the spinal marrow or nerves, paraplegia, sciatica, tic douloureux, &c. *To the epithelion*, deafness. Fifthly, *to glandular parts*; cynanche parotidæa, or mumps; swelling and other disorders of the thyroid gland, mam-mæ, testicles, prostate, and various other glandular parts; phthisis pulmonalis; atrophy. Sixthly, *to the head*; headach, vertigo, sleeplessness, common nervous affections, mania, delirium, convulsions, hysteria, epilepsy, catalepsy, inflammation of the pia mater, or arachnoides; together with their occasional sequelæ, hemiplegia, apoplexy, hydrocephalus, and other effusions. Seventhly, to other parts in various forms, peripneumony, enlargement of the heart, liver, spleen, kidneys, testicles, and uterus, with or without inflammation; fungus hæmatodes, ophthalmia, cataract, amaurosis. Eighthly, *various increased natural discharges*, not already specified; ptyalism, diabetes, lachrymatio. Ninthly, *morbid depositions*, not above arranged; scirrhusites, indurations, ossifications, chalk stone, biliary and renal calculi, and other hard deposits in different parts. Tenthly, *hæmorrhages*, from serous, mucous, or other membranes, or parenchyma; as from the nose, uvula, fauces, lungs, stomach, intestines, kidneys, bladder, uterus, vasa deferentia, skin, liver, &c. To which may be added the various forms of purpura."

Such are the chief examples, according to our author, of diseases in which increased impetus, momentum, or determination of blood, forms one essential link in the series of previous phenomena or causes. In what particular cases they may depend merely on excessive *local* momentum, and in what there is the coincidence of increased action of the heart, it may be difficult to decide. The same symptoms may arise under both states.

When the above list is compared with that of diseases from *deficient* momentum of blood, the contrast would surprise a Brunonian or routine practitioner, where every complaint exhibiting any trait of *debility*, is attributed to want of blood—*poorness* of blood, &c. instead of irregular determination and *partial* plethora.

We shall glance hastily at the principal diseases of *defective* determination. It may here be observed, however, that *excessive* determination to one part must of necessity produce *diminished* determination to others; but the *former* is the most formidable, and eclipses the latter.

1st. As the blood is the material of growth and secretion, we may conclude, that where there is a *partial* defect of these, there is not a sufficient *afflux* of blood to the part. Thus muscles shrink when not used; the heart becomes flaccid and exhausted, from unknown causes or from obstruction in the coronary arteries. 2d. To the same may be

attributed the sinking in of one eye; sudden grayness of the hair, &c. 3d. Dr. P. knew three instances of sudden and entire failure of the pulse in the humeral artery and its branches, while the action of the heart and of the other arteries was perfect. 4th. Defective menstruation. 5th. It is highly probable that costiveness, arising from want of the due peristaltic motion of the alimentary canal, is dependent on the defect of a due momentum of blood in the arterial system of that part. Thus Dr. P. has often known compression of the carotids relieve headache and flushing of the face, increase the warmth of the lower extremities, and at the same time produce a glow in the stomach and bowels, and a sensible propulsion forwards of the contents of the intestinal canal. 6th. In mortification from the ligature of arteries. 7th. Syncope from hæmorrhage, or various other causes preventing an adequate quantity of blood flowing to the brain.* 8th. Those gradual hæmorrhages from the nose, stomach, and hæmorrhoidal or uterine vessels, where the patient dies—"with an accumulation of blood about the heart and lungs"—and probably he might have added the *brain*, as the experiments of Dr. Seeds would lead us to expect.

"These," says Dr. P. "are all the cases of disease, whether topical or general, arising from defective determination or supply of blood, that I think it necessary to particularize here." 407.

Far as we have exceeded our boundaries, we must yet spare a few pages for the last Section of this invaluable volume.

Exemplifications of salutary processes.—That power of the constitution, termed REACTION, though derided by some of our sciolists in medicine, most obviously shows itself by an unusual redness and glow of warmth which are perceived in parts that have been preternaturally cooled; and evidently arises from an increased determination of blood to the parts, succeeding a deficient afflux of that fluid. In youth and strong health, this reaction produces no inconvenience; but occasionally it proceeds a step farther than is necessary for the well being of the part, and some morbid affection follows. This morbid affection is inflammation, differing in name and symptoms according to the texture of the parts. There is no disease, in which the process of reaction is more apparent than in the common fit of an ague; in this process, one of the most conspicuous circumstances

* Dr. Seeds's experiments prove, that there is an accumulation of blood in the brain at these times.

is the occurrence of *shivering* which, as a modification of exercise, our author ingeniously supposes to be an effort of Nature to restore the balance of the circulation and heat to parts in which both were defective.

Dr. Parry considers convulsions themselves as only another modification, and perhaps a greater degree of the same state of tremor, and that they are salutary efforts of Nature to restore the balance of the circulation, in epilepsy and hysteria for example.

"So, under various modifications of nervous diseases, the patient shall sometimes have vehement fits of spasmodic coughing, and at other times, frequent vomitings; one purpose of which several motions is, to drive forwards the blood in the veins, and thus to promote a free and equable circulation of that fluid throughout the system." 416.

This is a very different operation from that of heat, wine, full meals, certain passions, and various other stimuli. *These* indeed cause the heart to produce an inordinate momentum of blood in the several branches of the *arterial* system, and more especially of the head, while the *venous* system is only secondarily and imperfectly acted on. Exercise, on the contrary, by urging forwards the blood in the veins, permits a ready evacuation of arterial blood into those channels; just as opening a vein produces a quicker determination of blood from the neighbouring vessels.

"Under impressions of sorrow, suspense, &c. not only is the patient relieved by tears, which unload certain branches of the carotid artery, but considerable mental ease is obtained by that species of deep inspiration, called sighing, by which the right auricle, and therefore the jugular veins, and the whole nervous system of the brain, are, in an unusual degree, emptied of their blood." 418.

By what catenation such salutary efforts are excited in the system, our author pretends not to explain. The facts themselves are offered as suggestions for the purpose of inducing further inquiry.

An excellent exemplification of reaction is afforded in gout. Our author has already considered this malady as evacuating and depleting the system; here he views it in the light also of "a powerful means of restoring the due balance of the circulation, or at least of changing the direction of excessive momentum of blood." He has suggested, that while indolence and habitual indulgence dispose the body to fall into disease, from even a slight plethora, these two habits, growing so much out of the present construction of civilized society, are apt to produce plethora itself. The diseases thus produced, are evidently those of irregular de-

termination of blood, especially to the *head* and *alimentary canal*, parts that almost invariably suffer previously to, or during the intervals of gouty paroxysms. This is evinced on one hand by flatulency, predominant acidity, heart-burn, irregularity of appetite and bowels, and different degrees of sickness; on the other, by listlessness, incapacity of attention, depression of spirits, dreaming sleep, weight or pain in the head, vertigo, &c. Now during this excessive determination of blood to these important organs of the animal frame, there is, often, an unusual degree of coldness in the lower extremities, naturally proceeding from the defective balance of circulation. "Such is the state of circulation in the extremities, which usually precedes, and probably causes, the *reaction* of the constitution," which reaction, in an early period of life, is sometimes a mere aching and preternatural heat of the extremities, and perhaps occasional cramps; "but at more advanced periods, especially in persons who have been subject to excessive determinations of blood to the head and alimentary canal, producing the symptoms above described, the reaction goes on to the extent of causing gout, erysipelas, anasarca, or other inflammatory affections of the lower extremities." 424. In these paroxysms, the aid of the heart is usually, but not always contributed towards the restoration of the long *defective* determination; and by this process, as by that of *ague*, the constitution is, for a greater or less length of time, relieved from those disorders, or from that tendency to disorder, under which it had before suffered.

In the first beginning of gout, a very short period seems sufficient to restore the balance of the circulation, and the patient is absolved by one fit of inflammation of thirty-six or forty-eight hours duration in a single joint, which is followed by oedematous swellings, and the speedy recovery of health. But at a more advanced period of life, each attack of gout consists of several distinct inflammations of different parts, occurring in succession, with short intervals, during which, not only those parts of the extremities, which have *not* been affected, still remain preternaturally cold; but even the toes shall be cold, while the instep of the foot suffers burning heat. 427. Thus the disorder proceeds till, if the progress be favourable, a complete restoration of warmth in the extremities ensues. Thus while one final end of gout may be, the evacuation of the habit, and the consequent reduction of a plethora which is relatively excessive, another end is the restoration of the due balance of circulation previously determined in excess towards other and more vital parts. Such are the pathological views of our author on the important subject of gout; and

as they are the deductions of experience in a mind of no ordinary power of discrimination, they are of more value than all the chaotic speculations on that disease with which the public have been nauseated, from the *water-works* at Taunton, to the *quackeries* of Montpellier ; all of which have the same Lethæan tendency, in the opinion of more than ourselves.

“ If the representation, which has thus been given be just, we can well understand why many local diseases cannot be removed, or even in a certain degree checked, by local remedies, without the hazard of converting a topical into a more general malady, or of causing a constitutional effort on some other part ; which part may be more essential to life, than that which the attempt was made to relieve. The same evils may attend the administration of certain internal remedies, the tendency of which is not to cure the constitution, and so remove the necessity of the local disease, but merely to check the present salutary action of the system, and thus to cause only a temporary and delusive suspension of present suffering. Such, in the far greater number of instances, is precisely the action of the *Eau Medicinale* of Husson ; the injurious, and even fatal effects of which, local circumstances give me peculiar opportunities of witnessing.”

We have now closed the longest analysis that perhaps has ever been given of a Medical Work in any Review. The ideas and the facts of our author were in such a state of concentration, that it required unusual exertions on our part, to exhibit the prominent features of this excellent work in any reasonable compass. We sincerely trust—nay, we confidently hope, that our labours in this article will contribute towards the accomplishment of two objects—the diffusion of the volume already published through the profession at large, and the completion of the work by the author's son—a task which seems to have been prophetically announced by Dr. Parry himself, in the preface to the work before us. If we be successful in these attempts, we shall not have lived in vain—if unsuccessful, we have at least the consolation of having done our duty.

P. S. We have just learnt that Dr. Parry has paid the debt of Nature. His works are the best monument of his fame—and the foregoing analysis is the best eulogy which we could pronounce.

II

Miscellaneous Works of the late Robert Willan, M. D. F. R. S. F. A. S. comprising an Inquiry into the Antiquity of the Small-Pox, Measles, and Scarlet Fever, now first published: Reports on the Diseases in London, a new edition: and detached Papers on Medical Subjects, collected from various Periodical Publications. Edited by ASHBY SMITH, M. D. Licentiate of the Royal College of Physicians in London; Member of the Medical and Chirurgical Society of London, and of the Royal Medical Society of Edinburgh. One vol. 8vo. pp. 488. London, 1821.

DR. WILLAN was a learned, able, and indefatigable physician, who reflected honour on his profession, and did service to his country. Dr. Ashby Smith, his "relative and friend," a young physician of promise, has piously gathered together the *disjecta membra* of Dr. Willan's productions, and added to them a hitherto unpublished memoir on the antiquity of small-pox, measles, and scarlet fever, enriched with some notes and references by himself. It is highly proper that the scattered writings of eminent men should be collected by themselves or others, and left as imperishable memorials of talent well applied, for the encouragement as well as the improvement of the rising generation. Of the unpublished memoir, Dr. Smith has drawn up, in the preface to the volume, a very excellent analytical view, of which we shall take the liberty to avail ourselves in the article which we here dedicate to the work before us.

As the interest we feel in tracing the origin and progress of diseases corresponds, in some degree, to the extensive range of their visitations, and the devastations which have marked their course, it is not to be wondered at that the class of contagious eruptive fevers should have received a large portion of attention. More than a thousand writers may be cited on small-pox alone! The origin of this dire affliction is involved in obscurity, and, on that account, has been productive of great controversy. We need only allude to the discussions between De Hahn and Werlhoff in the early part of the last century, and the more recent investigations of Woodville, Moore, Monro, &c. &c.

By one class of writers it is maintained that the small-pox and measles (which were long considered to be varieties of the same disease) were known to the practitioners of Greece and Rome—by another class it is contended that their origin cannot be traced farther back than the com-

mencement of the Mahometan era, when the Saracens had the honour of first describing them. The *former* class assert that the descriptions extant in ancient writings resemble those of small-pox and measles as nearly as might be expected, when we take into consideration the influence of climate, customs, and habits of life—not to mention the changes which time may have produced in the character of these as of many other diseases. Another argument used on this side of the question is, that the earlier oriental writers who describe these diseases unequivocally, make no pretence to discoveries, nor to the recent introduction of such maladies—"whereas, had such been the case, it is not to be believed that they would have failed to record with their ravages; the age and birth-place of pestilences so destructive to the human race."

"The more general opinion, that the contagious eruptive fevers did not prevail among the ancients, is founded almost solely upon the want of direct and precise evidence of that nature in their works; it being considered incredible that such formidable maladies, if they had indeed existed, could have escaped the attention and accurate delineation of observers, the fidelity of whose descriptions in reference to affections of far less moment, is easily recognized at the present day." *Pref. ix.*

To this it has been replied, that the paucity of information and direct testimony may be accounted for by the practice usual among the ancient physicians of referring to the same pestilential constitution, different malignant fevers—the eruptions being regarded as crises varying less in their nature than in the accidental combinations of the peccant humours. To this may be added, the dread of contagious and fatal disorders, and the general conviction that they were dispensations of divine vengeance on guilty nations, and consequently beyond the reach of medicine or human aid. Dr. Willan's arguments are in support of the affirmative of this question—namely that the diseases alluded to *were known* to the ancients. One of his main objects therefore is to show that these diseases were in existence when the authors in question flourished; but that looking on these complaints as merely species of the common pestilence, they treated of them conjointly with it, considering it unnecessary to assign to them particular denominations, or to leave precise and accurate descriptions of them as discriminated from the generic distemper on record.

Rhazes, the first writer who mentions small-pox under a specific name, supposed it to have existed as early as the second century, and that it was well known to Galen. The Greek translator of Rhazes's Treatise adverts to Galen's ac-

quaintance with the disease as an undoubted fact. The title of this translation (*περι λοιμωξης*) and its preface* proves that the small-pox had been known to the ancient Greeks, under the name of Loimiké, (the loimic or pestilential disease,) and even divided into two species—the Loimiké and Eulogia, the latter term signifying the more troublesome species of the two. Haly F. Abbas observes, that “the Al-gidri (*variola*) are numerous small ulcerations affecting the whole or greater part of the surface of the body, which the ancients called Anthrakes; but which the (Syrian) Greeks and Arabians called daughters of fire.” Constantinus Africanus says—“*Antiqui vocant has (variolas) ignis carbones*,” and the modern Greeks yet apply the terms Loimé and Loimic disease to the small-pox and measles.

The identity, or near resemblance at least, of these several denominations to those employed by the same people to describe the plague itself, and its characteristic eruptive symptoms (Loimos and Anthrakes) implies such an imagined close affinity between the things denoted by them, as proves the confusion of all these diseases, and goes far (Dr. Willan thinks) towards explaining why the descriptions of, or allusions to, the variolous eruptions, actually transmitted down to us in their writings, should have been overlooked by the moderns. Pursuing this idea, Dr. Willan institutes a strict analysis of the leading published statements on pestilence, and the results, he thinks, clearly evince that certain parts of them must, in almost every instance, refer to the small-pox—and to the small-pox only. For example, an examination of the epidemic which broke out at Alexandria, A. D. 252, and which spread with great fury for twelve or fifteen years, proves that pestilence was not one uniform disorder, but comprised several different kinds under it, distinguished by the narrators from the common Loimos.

“The histories of the next considerable plague in point of time (that which prevailed in Syria in the reign of Dioclesian) lead to the following deductions vitally material to the question at issue. 1. The mortality was not occasioned by one form of disease, but, *independently of the common Loimos*, there was, according to Eusebius, *another disorder* termed, from its fiery nature, Anthrax. 2. This Anthrax spread over the whole bodies of the sufferers. 3. The eyes were very frequently affected, producing blindness in thousands

* Written in the 10th or beginning of the 11th century. The translator says—“it seems strange that he who first organized the medical art, (Galen,) and defined what had been left indeterminate, should have but slightly noticed a disease (small-pox) to which every man is born liable.”

of individuals. 4. Patients were not a *second time* attacked by the contagion. 5. It is by another author represented as an *ulceration attracting or draining out humours*, and attended with an offensive smell. (pp. 5, 6, 7.) Now it is very doubtful whether any of the several characteristics above specified will apply to the pestilential Bubo; certain that most of them will not; and equally certain that the aggregate will not correspond to the description of any other complaint except the small-pox; but that it will, with great fidelity, coincide with the most accurate accounts of small-pox in its confluent form. Dr. Willan therefore concludes, and the conclusion seems to be irresistible, that the disease distinguished so frequently under the name of the *spreading or herpetic Anthrax* from the common Loimos, was the confluent small-pox." xv.

In the 2d chapter Dr. W. continues the inquiry through the writers of the first and second centuries. Philo Judæus, about the middle of the first century, describes a Loimic disease which agrees very nearly with Eusebius's account of the herpetic or spreading anthrax, and exhibits the mode of diffusion, and the circumstances of the confluent small-pox.* Herodotus, a physician of Asia Minor, describes, in the reign of Domitian, a febris loimodes, without noticing buboes or carbuncles, but adverting to the existence of *ulcerative, anthrax-like, herpetic exanthemata on the face and the rest of the body*; "and observations present themselves in all the writers on small-pox, from Rhazes to Sydenham, similar to those made by Herodotus on these eruptions." Rufus, of Ephesus, says nothing of buboes or carbuncles in Loimos; but he states that—"besides other evil ulcers, the all-dreadful Anthrakodea may take place in the Loimos, *as well on the rest of the body as on the face and tonsils.*"

Galen has not left us any distinct history of Loimic diseases; but there are numerous scattered observations in his works respecting them—especially respecting a pestilential disease introduced into Asia Minor by the army of Lucius Varus, about the year 164, in which no mention is made of buboes or other glandular swellings; consequently Dr. Willan refers it to epidemic small-pox of the confluent kind, and also measles.

* We confess, however, that the Jewish philosopher's ætiology of this disease leaves an impression on the mind that it was not small-pox. He says—"the cloud of dust suddenly falling on men and cattle, produced over the whole skin a severe and intractable ulceration, &c. All these statements, too, must be taken *cum grano salis*: for even so late as the 14th century, a writer, after describing an epidemic small-pox, as Dr. Willan supposes, informs us that the Bishop having anointed a person, in this disease, with oil taken from the lamps burning at the tomb of Saint Marcellin, the pustules subsided, and the patient's skin became *more polished than it had formerly been.*

"1. When the disease was about to terminate favourably, numerous *exanthemata* appeared over the whole body, which in the greater number of patients were ulcerative or pustular.—2. The disease was occasionally attended with roughness and hoarseness of the voice.—3. A distinction is carefully made between two species of the *exanthemata*, which is precisely answerable to the long-recognized and universally known difference between the eruptions in small-pox and measles. (pp. 38, 45, and notes to 46.)—4. The sudden retrocession of pustules or tubercles efflorescing from within, rendered the case highly dangerous.—5. Almost all who perished, died of colliquative diarrhœa.—6. So great was the deformity produced in the persons of the sufferers by the ravages of the epidemic Anthrakes in Asia, that they were compared by the spectators to apes, rather than men." *Pref.* xix.

Dr. Willan thinks that, from a passage in Dion Cassius, (*Rom. Hist.* lib. 62,) there is some reason to believe that an attempt at inoculation had been made in the reign of Domitian, (A. D. 92,) and revived under the Emperor Commodus. After mentioning the great pestilence, (A. D. 189,) Dion Cassius adds—"many died in another way, not only at Rome but over nearly the whole empire, through the practice of miscreants who, by means of small pointed needles, communicated, for a reward, the horrid infection so extensively, that no computation could be made of the numbers that perished."*

In the fourth chapter, Dr. Willan endeavours to trace evidence of the existence of small-pox in periods anterior to the Christian era. He thinks that Hippocrates's account of the Anthrakes applies more strictly to small-pox than it does to carbuncles. His words are—"The Anthrakes appeared at Cranon, in a very hot and rainy summer, mostly with a south wind. Ichors collected under the skin, and, being

* This is pretty analogous to the calumnies circulated against our early inoculators. In one of the first pamphlets published here on inoculation it is said—"not only physicians make havoc of mankind for the satisfaction of their judgment in physic, and increase of their experience, but every quack now may be a hireling to the Devil, and, like that banditti in Italy, be ready to do the drudgery of removing heirs, and other obstructing incumbents of many kinds, and to do this under the mask of a cure, inoculating death instead of disease, and making use of an art never before practised, in a manner not foreseen, and by the laws not yet sufficiently guarded against."—See *Woodville's History of Inoculation*, p. 126. These specimens of medical logic, indeed, have been quite equalled by the early antivaccinators themselves, in our own times. We think we may venture to predict, that medical controversies in this style have now ceased for ever. The profession will never again disgrace itself by permitting the introduction of JOHN BULL ribaldry in their discussions.

confined, they became hot, and excited itching. Then there arose phlyctænides, such as are caused by fire, and they seemed to burn under the skin." 53. But we confess that we can see little in this passage to support the design of the author in *antiquatising* small-pox.

From the Grecian, Syrian, Jewish, and Egyptian records our author naturally has recourse to those of Rome in its regal and republican states. Here our sole guides are, of course, the historians and poets. Among the former the terms *pestis* and *pestilentia* were used in the same extensive signification as *Loimos* and *Loimiké* by the Greeks, comprising every contagious epidemical disease. It is therefore contended that, if diseases are found recorded in Roman history under these denominations, and with epithets and characters not appertaining to the pestilential bubo, or epidemics caused by famine, but descriptive in different degrees of the confluent small-pox, we are justified in presuming that the diseases so described were, in some instances, at least, the confluent small-pox.

The intrepid Seneca—a poet and philosopher, is introduced by Dr. Willan as describing a disease, the *Loimos* at Thebes, bearing a striking resemblance to small-pox.

“ O dira novi facies leti !
 Gravior leto !—Piger ignavos
 Alligat artus languor, et ægro
 Rubor in vultu, *maculaque* caput
Sparsere leves ; tum vapor ipsam
 Corporis arcem flammeus urit
 Multoque genas sanguine tendit,
Oculique rigent, et *sacer Ignis*
 Pascitur artus. Resonant aures
 Stillatque niger naris aduncæ
 Cruor, et venas rumpit hiantes.
 Intima creber viscera quassat
 Gemitus stridens, &c. &c.

Senec. *Œdip. Act. I.*

Dr. Willan points out the coincidence between this eruptive disease and small-pox or measles. He does not think the circumstances attending these last eruptions are better described by any of the Arabians or other medical writers prior to Rhazes, than in the above extract.

The fourth chapter of this learned essay is dedicated to the purpose of showing that small-pox was prevalent in the British Isles and on the Continent of Europe, prior to the supposed origin of the disease in Arabia, being described by literary men under the terms *pusula*—*pustularum morbus*, and *morbus dysentericus cum pustulis*. Gregory of

Tours states that, about the year 580, A. D. almost every district of France was occupied by a dreadful plague (Lues) in which the patients were affected with violent vomiting, fever, headach, and excruciating pain in the loins. This epidemic was particularly fatal to *children*. King Chilperic recovered with difficulty himself, but lost two of his sons. Austrigilda, Queen of Orleans, sank under this disease; but not until she had exacted a promise from the *king* that her two physicians should be put to death if they did not save her! The physicians were accordingly executed! We live in better times now. A queen may die, and her physicians may still hold up their heads—even “within the verge of the palaces.” The following passage from the same author, must, Dr. Willan thinks, remove all doubts that the small-pox existed in France long before the Arabian era.

“Last year, the state of Tours was *desolated* by a very severe pestilential sickness (Lue Valetudinaria;)—such was the nature of the infirmity (*languor*,) that a person, after being seized with a violent fever, was covered all over with vesicles and small pustules (*vesicis ac minutis pustulis*.) The vesicles were white, hard, unyielding, and very painful. If the patient survived to their maturation, they broke, and began to discharge, when the pain was greatly increased by the adhesion of the clothes to the body. In this malady, the medical art did not avail without the assistance of Saint Martin; for many were restored, who sought a benediction from his holy temple. Among others, the Lady of Count Eborin, while labouring under this pest, was so covered with the vesicles, that neither her hands, nor feet, nor any part of the body, remained exempt, for even her eyes were wholly closed up by them. When nearly at the point of death, she received some of the water, in which the tomb of the blessed saint had been washed at the Lord's Passover. This having been taken as a drink, and applied to her sores, the fever abated, the discharge from the vesicles was made without pain, and she was soon after healed.” 92.

We confess that this is a very strong document, and nearly decisive of the question.

In the British Museum there is a miscellaneous manuscript of the eighth or ninth century, partly Saxon, partly Latin, in which it is said that Saint Nicaise, Bishop of Rheims, A. D. 453, had been affected with a species of variola, and was at that time favoured with the privilege of emancipating his worshippers from the disease by means of a talismanic inscription to be suspended about their persons. “*Sanctus Nicasius habuit minutam variolam, et rogavit dominum, &c. &c.*”

The Treatise concludes with a description from Adomnan, a learned Hibernian Scot, of an *eruptive epidemical disease*

in Ireland, attended with *purulent ulcerations*, which raged contemporaneously with the pustular lues in France.

It is evident that Dr. Willan has not contented himself with consulting the ordinary sources of information on the subjects under investigation—the writings of medical authors. He has taken, in fact, a comprehensive view of the works of historians, poets, and ecclesiastical writers of antiquity. From these authorities he has accumulated a mass of *probable* evidence that the small-pox, measles, and scarlet fever, have existed in almost every age of the world, of which history or tradition has furnished us with any records. Such an inquiry is certainly very interesting, and only subordinate to an accurate investigation of the nature and treatment of these diseases at the present moment. Such inquiries, too, enlarge the mind, and thus invigorate the understanding—a due proportion of them is therefore to be encouraged in modern medical literature; on which account we have entered into the analysis of Dr. Willan's posthumous essay, somewhat farther than the able editor himself. The notes and references appended to this part of the volume by Dr. Smith are creditable to this gentleman's erudition; and we cannot help anticipating something important from the same pen, when time shall have matured his judgment, and experience supplied him with ample materials whereon to exercise it.

Of the "Reports on the Diseases in London," we need not speak, as they were first published in the periodicals of the day, and afterward collected and republished in a separate volume, with additions by the author himself. In the present edition, however, there are notes appended by Dr. Smith, which tend to enrich these very valuable reports.

The detached papers on medical subjects collected in this volume, are five in number, viz. a remarkable case of abstinence—a case of obstruction of the bowels—singular termination of dropsy—observations on the use of arsenic in intermittents—and cases of Ischuria Renalis in children.

It is a common observation that we want facts or materials in medicine, on which to raise the superstructure of theory or science. But time buries facts in oblivion almost as fast as they are recorded. Who in the present day has time or inclination to toil back through the innumerable volumes that have been written, or the myriads of cases that have been put upon record by our predecessors? Very few indeed! A *retrospective* review in medicine is the greatest desideratum in this intellectual age; and we are perfectly satisfied that such a work would confer more benefit on medical science than all the other periodicals put together. It

would also have unprecedented success ; for the facts collected from the records of the past would be completely new to nine-tenths of medical society ; and, with our now extended knowledge of pathology, would turn to excellent account. This has long been our conviction, and were it not that a delineation of what is *now* going on in the world requires the *whole* of our review, we certainly should put the suggestion into practice. We hope some others, more equal to the task, will take the hint here thrown out. The cases recorded only 30 or 40 years ago by the author, whose work now lies before us, are virtually unknown to the great mass of practitioners, and therefore we shall take some notice of them in this place.

The first was a melancholy case of fanatical abstinence, from which Danté might have drawn his too celebrated description of the wretched and emaciated Ugoline. A young man, studious and dyspeptic, commenced a course of abstinence in the year 1786, ostensibly to relieve certain uneasy sensations in his stomach, but secretly from some mistaken notions of a religious nature.

Having betaken himself to an obscure lodging, he entered on a system of diet, composed of water slightly acidulated with orange juice. After three days' fare of this kind, the craving for food, at first troublesome, subsided entirely, and he then pursued his meditations without inconvenience. He took no kind of exercise—slept little—and spent most part of the night in writing. The quantity of water used each day was about three-fourths of a pint ; and two oranges served him a week. He made water in moderate quantity, clear and without sediment. He had a natural stool on the second day of this course, and none again till the fortieth day, which was the last, though he persisted in his aqueous regimen for twenty days longer. During the last ten days of this infatuated course his strength wasted rapidly, and when he found himself unable to rise from his bed, he got alarmed, and his delusive visions began to fade away. His friends, at this time, having discovered his retreat, a clergyman and physician (Dr. W.) were sent to him, and obtained his consent to try the means of resuscitation—he being now in the sixty-first day of his fast.

“ He was at that time emaciated to a most astonishing degree ; the muscles of the face being entirely shrunk ; his cheek bones and processus zygomatici stood prominent and distinct, affording a most ghastly appearance : his abdomen was concave, the umbilicus seeming to be retracted, from the collapsed state of the intestines ; the skin and abdominal muscles were shrunk below the brim of the pelvis, and under the ribs, leaving the space vacant betwixt the ossa

are brought to such rigid abstinence. In tumours, aneurisms, and many organic diseases of internal parts much might be done by aqueous aliment, were it properly urged by the practitioner, and implicitly adopted by the patient.

The next case related by Dr. Willan is that of a remarkable obstruction of the bowels. A lady, fifty years of age, subject to frequent attacks of pain in the bowels, and generally constipated, was seized on the second of April, 1784, with the usual symptoms of colic, attended with almost constant vomiting. Purgatives of every description were exhibited, together with clysters of all kinds, including the smoke of tobacco, but without any effect. The abdomen was also cupped. After six days obstruction and great pain at intervals, there was still no fever, nor mark of irritation in the pulse. Ice was now applied to the abdomen, which gave great pain, and excited much commotion in the bowels, but produced no evacuation. On the 10th April she passed some flatus downwards, and this encouraged the attending physicians to try quicksilver, which was given to the amount of six ounces in two drachm doses. As it produced a sense of weight and uneasiness, she could not be prevailed upon to take any more of it. On the 17th and 18th there appeared some slight feculency in the motions which gave some ray of hope, but nothing more appeared, and the patient continued in this deplorable condition till the 1st of May, when she expired.

Dissection. The bowels were found amazingly distended throughout, particularly the caput coli, and containing not less than four gallons of fluid feculent matter. The whole tract of intestines was inflamed, and in many places sphacelated. The constriction was found at the lower part of the sigmoid flexure of the colon near the top of the sacrum. For about the length of an inch the intestine was so contracted that nothing could pass it. This portion of bowel was quite hard and callous. Some of the quicksilver was found above the stricture; a part of it also seemed to have been triturated with the mucus of the bowels into a black gelatinous mass. The other abdominal viscera were healthy.

Dr. Willan makes some reflections on this case. It is remarkable, he observes, first; that extensive inflammation, and even mortification, may take place from a gradual distention of the bowels, without producing heat, fever, or any of the common inflammatory symptoms. Secondly, it is interesting to know that a patient lived upwards of thirty days without any evacuation, and without any stercoraceous

vomiting. Thirdly, that quicksilver taken into the stomach, in considerable quantity, and retained in the bowels for some time, does not always produce dangerous effects from its bulk or momentum. Fourthly, that constrictions in the large intestines are not attended with the same acute and violent symptoms, such as fever, sharp pain, constant vomiting, hiccups, prostration of strength, &c. which generally soon prove fatal in contractions or spasms of the smaller bowels. This observation, he thinks, may help to distinguish the seat of the disease, and when we conclude that the obstruction is in the large intestines, he cautions us against persisting in the use of active purgatives and stimulant enemata, which often give unnecessary pain, and tend to aggravate the disorder. In such cases, he thinks, the introduction of a candle or bougie up the rectum and into the colon might lead to relief.

We lately attended a female in Bond-Street, who had been ill with enteritis several days before we saw her, and who lived sixteen days without any evacuation. The fever, however, was considerable, and the decisive depletion, which we put in use, completely quelled this part of the complaint. But no evacuation could be procured by any of the usual means. She came at last to vomit up the contents of the small intestines daily, after which she was quite easy, cheerful, and comfortable, till the next day, when similar evacuations took place from the mouth. We are strongly disposed to think that life might have been eventually preserved, though with this dreadful appendage of daily vomiting up the fecal remains of the small intestines, had we not, on the 16th day, been induced to exhibit quicksilver. She died that night. We found about eight inches of the ileum, where it terminates in the colon, in a state of complete gordian knot, and glued together by the effects of adhesive inflammation, but all inflammation itself of this and other parts of the bowels was gone. We could not find the quicksilver at all. Mr. Tebbs, of Bond-Street, was present at this dissection. There were extensive marks of repeated attacks of inflammation about the uterus and ovaria—but all fever and phlogosis had disappeared for many days previous to death. We understand there is a man now in London, who lives, with a complete obstruction in some part of the alimentary canal. He has daily one or more fits of fecal vomiting, after which he pursues his usual avocations in common health, and without ever having a motion by stool.

The last case which we shall notice in this volume, is that of a woman, 38 years of age, who having caught a severe

cold, became soon afterward affected with anasarca swellings of the legs, which did not subside when the catarrhal symptoms disappeared. When our author first saw the patient she was universally bloated—her legs especially were swelled to an enormous size—and there seemed to be fluctuation in the abdomen. After the natural cessation of a menstrual discharge, there came suddenly on a flow of water *per vaginam*, which drained through the bed before she could get assistance, and afterward filled a vessel that held three quarts, leaving her faint and languid. The evacuation continued in a more gradual manner for two days, when the dropsical effusions had entirely disappeared. Within ten days the water had again accumulated, and again the same evacuation as before took place, and with the same effect. She now went into the country, took the cinchona, and completely recovered. It is proper to observe that the patient took two grains of the digitalis thrice a day (a pretty large dose by the by) for a fortnight prior to the first evacuation of water, but with only trifling effect on the urinary secretion. "The sudden termination," says Dr. Willan, "of the disorder must be referred to the operation of the remedy coinciding with the state of the uterine vessels, and determination of blood to that organ at the time." It was, in fact, one of those *God-sends*, where nature does the business for us in a handsome way. From some cases, however, which we have seen, and others that we have heard of, we are inclined to doubt that this watery discharge was *uterine*. We have seen the *urinary* discharge so copious and involuntary sometimes that the patient could not be persuaded the fluid came from the bladder. In such cases the renal secretion had not the common characters of urine.

The paper on the use of arsenic in intermittents, and the cases of ischuria renalis in children, we are obliged to pass over, having already dedicated a considerable space to the volume under consideration.

III.

Notes on the Medical Topography of the Interior of Ceylon; and on the Health of the Troops employed in the Kandyan Provinces, during the Years 1815, 1816, 1817, 1818, 1819, and 1820: with brief Remarks on the prevailing Diseases. By HENRY MARSHALL, Surgeon to the Forces. Octavo, pp. 228. London, 1821.

No nation ever possessed equal disposition and equal power with the English, to investigate what was useful or curious

in foreign countries. Our arms or our arts are distributed over the whole surface of the globe. Well might we say—"Quæ regio in terris nostri non plena laboris?"—and well might we smile at the celebrated but now Lilliputian wanderings of Ulysses and Æneas. What were the voyages of Hanno, Nearchus, and Columbus, compared with those of modern navigators? The medical officers, too, of our fleets and armies have contributed their share in raising the reputation of their native island by their scientific researches in foreign seas and lands. The nature of diseases, the influences of climate, and the powers of remedies, have all received great illustration from the labours and the personal sufferings of our brethren attached to the armaments and expeditions of a country so long struggling with the gigantic power of Europe combined in arms against her. The extent of our colonies still offers, even in profound peace, an ample field for etiological, pathological, and therapeutical investigations, especially when aided and stimulated by the heads of naval and military medicine. Mr. Marshall has therefore endeavoured to contribute his mite to our existing stock of information, by portraying, or at least sketching, the medical topography, climate, diseases, and natural history of Ceylon, an island with the interior of which we have but lately become much acquainted. The work is dedicated, in terms of respect and gratitude, to Sir James M'Grigor, the distinguished director-general of the Army Medical Department, and makes no pretence to the "graces of composition," the author being anxious "to express himself in terms so as to be clearly understood, and in as few words as the nature of the subject would permit." The author also expresses his obligation to Dr. Theodore Gordon, of the Army Medical Board for his kind assistance and advice respecting the publication of the present volume.

The work is divided into three parts; the first being on the medical topography of the interior of Ceylon; the second on the health of the troops, &c. and the third on the prevailing diseases of the island. Our limits will not permit us to notice in detail the various subjects briefly discussed in this volume, the whole of which, however, will prove very interesting to those of our brethren, whose destinies may lead them to visit our Indian possessions.

The first chapter presents a very spirited topographical sketch of this far-famed island, from which we shall select but a very few particulars. The island is divided naturally into a central or upper, and circumferential or lower country. The extent of the former is as one to eight of the latter. Some of the interior hills rise to upwards of 6000 feet above

the level of the sea. The face of this upper country consists of a congeries of detached heights and undulatory swells, interspersed with high and phantastically-peaked mountains, the whole, in general, covered with trees and underwood. The ground is, for the most part, strewn with decaying and decayed vegetables, especially leaves.

"The lower and comparatively flat portion of the island, is of very considerable extent; like the elevated terrace, it is almost completely covered with jungle and forest-trees. The scene is here extremely dull and uniform. There is nothing to diversify the prospect. One forest succeeds another, divided only by narrow strips of unwooded surface, which are for the most part uncultivated. The traveller is frequently in the flat country enveloped for many miles together in thick woods. In vain he expects, as he moves on, to meet with some variety, some circumstance, connected with the happiness or occupation of man, to interest his feelings. A gloomy stillness and solitude prevail over the whole country. The silence of the forest is seldom interrupted except by the cooing of wood-pigeons, or the rustling of wild animals, the only inhabitants of the deep jungles. The greatest degree of stillness prevails during the period about noon, when all classes of animals seek shelter from the ardent heat of the sun in the shady recesses of the woods." P. 3.

There are no natural lakes in the upland portion of the Kandyan country; but during heavy rains the rivers overflow their banks, and inundations of the plains take place to considerable extent. The superfluous water is eventually drained off by the Monsoon winds.

The high hills of the interior intercept the clouds during both Monsoons—hence the frequent genial showers which fertilize the soil and promote the exuberant foliage. At the change of the Monsoons there are heavy fogs in the mornings, which hover over the chains and valleys between the higher mountains, long after the tops of the lower hills become clear. Where the soil is clayey, the surface becomes hardened and divided by deep fissures, after drought of any continuance. There is a mystery, our author thinks, attending the hot land winds on this island. In some places, as on the Coromandel coast, they may be accounted for by the large tracts of heated sands over which they pass; but this cannot be their origin, he imagines, in Ceylon, for here they commence shortly after the fall of the rains, at the setting in of the S. W. Monsoons, and blow towards the coast over hills covered to their summits with trees, and over swampy valleys, thickly overgrown with low underwood, which extend to the very edge of the sea. Mr. Marshall must know that this is the season for the hot land winds along the Coromandel coast, and as the winds blow nearly from West to

East at this season, they must pass over the Continent in the neighbourhood of Cape Comorin, where they may become heated before they arrive at, and blow over Ceylon. Copious thermometrical tables follow, by which we observe that the mean temperature throughout the year, by night and by day, at Trincomalle, is somewhat above 80° Fahrenheit.

We must pass entirely over those portions of the work which contain accounts of the natural history, manners, customs, habits, food, occupations, &c. of the Kandyan inhabitants, as not coming within the scope of this Journal. These details will prove exceedingly interesting to the traveller who visits Ceylon.

From the 3d chapter, respecting the prevailing diseases among the *native* inhabitants we shall extract a few particulars. These diseases are principally climatorial—"few arising from the vitiated secretions of the living human body." Excepting small-pox, they suffer little from the specific contagions. Fevers of an intermitting and remitting type, and dysenteries, are the prevailing maladies.

"The inhabitants observe, that hot, dry, and parching weather frequently precedes and accompanies the prevalence of fever. Partial showers, succeeding a long period of dry weather, are supposed to aggravate the influence of the cause of fever." 39.

This corresponds with the observations of Dr. Ferguson and other writers on hot climates. The provinces on the Eastern side of the interior terrace or high ground, are peculiarly insalubrious. Dysenteries sometimes arise idiopathically, but are more usually the sequelæ of fever, and are accompanied by an anasarctous torpid state of the system. Our author saw a number of Kandyans suffering from a wide-spreading ulcer, of the Phagedenic kind, which discharges a glairy fluid that dries into an elevated hard gray scab. It invades almost every part of the body, excepting the scalp, and is deemed by the natives incurable. It did not appear connected with any derangement of the digestive organs.

"I have seen eight or ten cases treated with the blue pill, which was given so as slightly to affect the mouth. The symptoms were universally improved: indeed all those who took the medicine regularly recovered." 43.

The Kandyan medical works mention a cutaneous disease, consisting of seven varieties, and termed "*parangy ledæ*," sometimes "*rata wah*" "foreign virulent diseases," which our author be syphilis imported into Ceylon by the Por here appears little to sup-

port the conjecture. The native doctors try simple remedies, for two or three months, and these failing, they universally have recourse to mercury.

Parturition does not appear quicker in Ceylon than in colder latitudes; but it is much safer in the result. Midwives assured our author, that they have not witnessed a fatal case in a thousand parturient females. Flooding to a dangerous extent is unknown. When the superior extremity presents they endeavour to return it. One midwife informed Mr. M. that in two instances, after failing to return the arm, she introduced her hand into the womb, grasped the child by the feet, and in this manner delivered her patient.

The author next presents us with a long account of *native medicine*, occupying 25 pages of letter-press. It is a tissue of ignorance, error, and superstition. Matters of mere curiosity, totally destitute of all utility, should be introduced with great caution into medical writings. Nevertheless this portion of the work will be read by the European medical officer, while lolling on his couch beneath the fervour of a Ceylonese sky, as a poor substitute for a Scotch novel, a quarterly review, or a monthly magazine. In this country we cannot throw away *time* on such absurdities—*time* being a scarce and valuable article here, but a heavy drug in the Indian market.

The second part of Mr. Marshall's work opens with an account of the physical constitution, and moral habits of the various classes of troops, Europeans, Malays, Caffries, and Indians, at the different stations in Ceylon. From this portion we shall cull a few particulars that may prove, more or less, interesting to our readers.

Our author observes that Europeans, on their arrival in Ceylon, generally undergo some change (and that not for the better) in their corporeal and mental functions. Their constitutions become irritable, and easily affected by stimuli. Many of them experience some degree of emaciation. The skin loses the ruddy hue of robust health, and assumes a pale yellowish shade. Moderate exercise becomes fatiguing, and the mind is indisposed to much application. Some individuals, however, of the higher classes, who are subjected to little fatigue, live temperately, and do not expose themselves much to the direct rays of the sun, are not greatly liable to acute diseases; but no care can entirely prevent the debilitating influence of the climate, and a tendency to chronic disease of some of the internal organs. Senescence frequently precedes old age at a considerable distance. Even females, who of course are little exposed, soon lose the

plumpness of health—the countenance becomes sallow—the general complexion pale and colourless.

The fatal diseases to which Europeans are subject in Ceylon, are fevers, abscesses in the liver, and dysentery; but they are exempted, or nearly so, from a long catalogue of other diseases. Intemperance, in drink, is a common failing among British soldiers in all countries—in warm climates it is particularly injurious. In many parts of Ceylon Arrack may be procured for about sixpence a quart—the temptation, therefore, is seldom resisted.

The MALAY troops make good soldiers when properly managed. Their principal food is rice, dressed as throughout India, with spices, and sometimes *ghee* or butter. Those who have been born in Java and the neighbouring isles have a great propensity towards smoking and eating opium. The habit once acquired can never be broken. Like intemperance in drink, it destroys the mental and physical powers in the end. Malays are liable to pectoral complaints, particularly pneumonia, and also phthisis and asthma. They are likewise affected with endemic fever when exposed to its causes—chiefly in the form of intermittents. To scabies they are greatly liable. The females are distinguished for fecundity—the children thrive remarkably well, and eventually contribute to recruit the regiment.

Not so with the AFRICANS, or CAFFRIES, as they are called. They are very liable to cachexia, phthisis, and enlargement of the lymphatic glands; but are almost wholly insusceptible of the endemic fevers of the country.

“Ceylon appears to have been extremely unfavourable to the health and propagation of Caffries. Not a trace of the many thousands brought to it by the Portuguese colonial government is to be perceived. The same may be said of a colony of Africans, which was imported about the year 1782, by Governor Van de Graaf.” P. 80.

This high degree of mortality among the offspring of Caffries, (for they generally wither and die before they reach their 14th year,) cannot be ascribed either to neglect on the part of their parents, or to their being exposed to great hardships. The mothers are very attentive to their children, and the Caffry families are liable to no inconvenience, except when moving from one station to another. It is curious that the Caffry children, by indigenous mothers, thrive as badly as the pure descendants of Africans.

The diseases of the *native Indian troops* are comparatively simple. Intermittent fevers, inflammation of the lungs and of the intestines, are the principal. These troops have little fortitude under disease, and their physical frames seem fr-

quently to possess but a very moderate share of the principle of resistance to the inroads of disease, and of the powers of renovation.

Our author next introduces useful and valuable remarks on the medical topography of the individual stations, which, of course, we shall pass over, as well as the succeeding chapter on "the employment and health of the troops, from 1815 to 1820, with annual tables of the mortality, &c."

The third part of the work before us contains "Brief Remarks on the prevailing Diseases," beginning with **FEVERS**. These were of the remittent and intermittent types. We need not go over again for the hundred thousandth time, the symptoms of remittent fever. Most of those who died were opened.

"In cases where the disease terminated rapidly, there were very seldom any remarkable changes of structure observed. Even when the progress had been considerably protracted, many cases occurred where the structural derangement was apparently of little importance. The morbid structure discovered on dissection was rarely of such a degree as to appear to be the immediate cause of death." 139.

The more common changes of structure in the brain were, serous effusion under the dura mater, or between the arachnoid and pia matral tissue, increased vascularity of the brain and membrahes, and serous effusion in the ventricles. In the thorax, portions of the lungs were occasionally found gorged with blood. In the abdomen, the liver frequently evinced a deviation from healthy structure. "Sometimes it was unusually red, at other times the colour was darker than natural; occasionally the organ appeared gorged with blood, and sometimes it seemed to contain less of that fluid than usual." The bile was unnatural in appearance—sometimes brown or coffee-coloured, and often resembling pitch in colour and consistence. The villous coat of the large intestines was sometimes found dark red and pulpy—occasionally incipient mortification had taken place. The spleen was often found enlarged.

The treatment employed by the medical officers was commonly antiphlogistic. In the early stage of the disease venesection was generally resorted to, particularly if there was much reaction. Cathartics were regularly administered, and febrile heat was reduced by the affusion of cold water.

"The early and repeated use of the lancet seldom failed to abate the violence of the most urgent symptoms of fever. Frequently, however, although the symptoms were meliorated, a fatal issue of the disease could not be averted. There are some grades of tropical fever which appear to be almost beyond the power of medicine." P. 143.

When the bleeding, purging, and cold affusions failed to arrest the progress of the disease, our author could only stand by, "and obviate occasional symptoms."

In the first case detailed, at page 144, we were somewhat surprised to find it seriously stated that there were thirty minims of serous effusion in each ventricle, and an equal quantity at the base of the brain. Thirty minims of water would not wet the base of the brain, so that it is pathological trifling to talk of such an effusion.

In the chapter headed "Inflammation of the Liver," Mr. Marshall observes that he has seen no reason to believe that the temperature of a tropical climate acts at all as a spur on the secretory function of the liver, increasing the formation of bile. But he offers no facts or observations to support his own opinion, or invalidate the contrary one entertained by almost every medical man who has visited the torrid zone. We do not deem it necessary therefore to enter into any argument on the subject. This chapter contains some good observations, but none of them new, on hepatic inflammation, as it occurs between the tropics. His practice is solely depletory by bleeding and purging.

"Should the acute symptoms subside without a return of health, and should there be no manifest proofs of the formation of pus in the liver, the use of mercury may then be tried, together with frequent moderate purgation. A mild degree of salivation is sometimes useful in this stage of the disease. When the liver contains an abscess, I suspect no quantity of mercury will cause pytalism. Under such circumstances, the exhibition of mercury frequently occasions a soreness and heat of the gums, but rarely, if ever, pytalism. Do other states of structural derangement of the liver (such as induration, or morbid softness) prevent the system from yielding to the salivatory operation of mercury?" 160.

As far as our observations extend there is peculiar difficulty in affecting the system with mercury in all organic diseases of the liver. The reason we cannot divine.

In the chapter on "a particular species of palsy," our author brings forward some curious observations which he had an opportunity of making in the year 1812, several cases of this disease having then occurred in the 4th Ceylon regiment.

For the most part, the complaint commenced with pain in the muscles of the thighs and legs, particularly the bellies of the gastrocnemii, accompanied by a general numbness of the extremity and imperfect power of locomotion. A sensation as if hot water or sand were running over the parts is sometimes felt—at other times, a sense of formication. The rectum is seldom much affected during the early stage of the

"When the disease has made considerable progress, the patient is unable to walk steadily. Standing or walking, in general, greatly aggravates the uneasiness of the limbs. The patients have an infirm tottering gait, and those whose hands are affected lose the power of feeding themselves. They seldom enjoy sound sleep, although they seem to labour under a sluggish inactivity and an unwillingness to exert themselves." 161.

The progress of the disease is sometimes protracted to several months; and in the advance of the complaint the patients express their sensations of the affected parts to be as if they were dry or dead, and almost entirely without feeling. Loss of appetite, indigestion, and emaciation soon follow—the limbs lose their natural temperature—the extensor muscles become paralytic, while the flexors seem still to have some force, thus contracting the joints. The pulse is frequent, thready, and fluttering—the vital functions greatly impaired, and eventually death ensues. The above is a description of the disease in its most violent form; but there are many gradations of severity. It is not met with among the indigenous inhabitants of the island. It is chiefly found among the Caffries.

"Europeans are not exempt from a similar kind of paralysis. In them the disease invades more suddenly than among Africans. A European artilleryman stationed at Tingall slept all night in a house, the doors and windows of which remained open. Next morning, on attempting to get out of bed, he fell precipitately to the ground. He had completely lost the voluntary power of moving his inferior extremities; his legs were cold, benumbed, and but little sensible to external impressions. By the application of warmth and the constant use of frictions, some relief was soon obtained. Five weeks after the supervention of the disease in his legs and feet, his hands became affected. Frictions and warm clothing were adopted, and seemed to be useful. When six months after the commencement of the disease had elapsed, he had not entirely regained the use of his hands. He was then unable to hold a small object with any degree of firmness between his fingers. His feet were less warm than natural: he complained that they felt numbed and torpid. He could walk pretty well on a level road, but ascending or descending a hill gave him great uneasiness. During exercise he regained in part the sensibility of his feet, but the advantages of exertion were only temporary." 163.

The most apparent causes of this disease are the application of cold and moisture to the body, especially when asleep—intoxication—violent exercise in the sun—insolation when sleeping—suddenly obstructed perspiration—and long fasting.

"The indication of cure seemed to be to stimulate the general

system, and to excite the circulation of the blood in the extremities. These appeared to be best fulfilled by an improved diet, friction of the affected extremities, warm bath, fomentations, moderate exercise, warm clothing, &c. Mild cases were, for the most part, much benefited by this treatment. Some, however, resisted every mode of cure. In these cases the symptoms became gradually more aggravated and less under the influence of medicine. Severe cases rarely recovered." 164.

The fourth chapter is on dysentery. In the author's symptomatology of this well-known disease, we cannot expect to find any thing new. The following passage exhibits our author's *ratio symptomatum*, and indeed pathology of dysentery—to many parts of which Mr. Marshall cannot lay claim, in point of originality.

"The following seems to be the progress of the local symptoms of dysentery. During the early stage, it may be presumed that the capillary arteries of the villous coat of the large intestines are in a state of active congestion. This state is evidenced by an increase of the natural mucous secretion, more or less commixed with blood. As the disease advances, fluids are effused into the coats of the intestines, more particularly into the villous coat. The coats of the intestine become thickened, unequal, and the cavity contracted. The villous coat is now covered with a slimy muco-purulent substance: which, mixed with blood, effused from ruptured blood-vessels, forms the discharges passed during a considerable period of the disease. Patches of the villous coat eventually slough. The sloughs are commonly dark-coloured, and have a grumous appearance. The gangrene extends, and death, in some cases, does not take place until large portions of the villous coat, and sometimes of a part of the other coats of the intestine, sphacelate. Under the gangrenous stage of the disease, the evacuations are fluid, brown-coloured, and excessively offensive: they seem to consist chiefly of a thin fetid serum." 175.

In the foregoing pathology the local symptoms are too much confined to the mucous membrane of the large intestines, and indeed the *ratio symptomatum* altogether is too confined. The author does not extend his views to the deranged functions of the skin and of the liver—derangements which are to be kept in mind, not only in a pathological but a therapeutical point of view.

For the cure of this formidable disease, our author seems to depend chiefly on venesection, a natural consequence of his considering inflammation of the mucous membrane of the intestines as the cause of the disease. But Mr. Marshall observes, or rather confesses, that "the influence of blood-letting over inflammation of the mucous coat of the intestines is often very feeble." Upon mild purgatives, fomentations to the

belly, the warm bath, blisters, opiates, injections, our author seems to rely, after venesection. When the intestines are disorganized, then, he says, we may try mercury, given to ptyalism. Now we would also utterly forbid the use of mercury under such circumstances. But we would exhibit it *early*, and before any disease of structure took place, as a most valuable auxiliary to local and general bleeding, antimony, and the other means before mentioned. Mr. Marshall seems to have no idea of mercury being an important mean of cure in tropical dysentery, and, therefore, we shall extract from pages 184 and 185, a report of Dr. Paterson, which bears on the point in question.

“ Dr. Paterson, Assistant-surgeon, 45th regiment, has much confidence in the liberal use of mercury, combined with copious venesection. He has had considerable experience in the treatment of Europeans under dysentery ; and, as he is an intelligent and attentive medical officer, his sentiments demand our regard.

“ In all cases of dysentery, which come early under his care, with much vascular commotion, he bleeds freely. Five or six pounds are sometimes taken from the arm in the course of two or three days. He thinks himself warranted in repeating venesection until the blood drawn has no buffy coat, the pain be much relieved, and the blood passed by stool greatly diminished. He gives occasional purgatives, such as small doses of neutral salts, during the course of the disease. With respect to the exhibition of mercury, the following are his views : ‘ In the cure of dysentery,’ he says, ‘ my object is to bring the system under the influence of mercury as speedily as possible ; and, with this view, a scruple of calomel is given morning and evening, having previously prescribed a laxative. - The calomel seldom produces any inconvenience. In some cases, however, it is necessary now and then, to interpose a dose of castor oil, or of some neutral salt, from its producing a degree of uneasiness in the bowels, and sometimes an increase of the tenesmus. After three or four doses of the calomel, the mouth becomes sore with ptyalism ; and from this event, the disease uniformly yields. The cases of relapse, or long standing, however, receive no benefit from the mercury, as the mouth never can be properly affected. Instead of ptyalism, the mouth becomes hot and dry, with considerable irritation of the constitution, and, I think, a hurtful influence on the disease. From the insusceptibility of the system to the salivatory influence of mercury, I am induced to believe, that the disease has already produced such derangement of the structure of the intestines, as to render it doubtful if any medical treatment whatever could effect a cure ; and from this event alone I generally pronounce an unfavourable prognosis.

“ ‘ I am far from pretending to say that mercury given in this way will uniformly cure dysentery ; but in giving it a preference in the disease, as it appears in Kandy, I think I am warranted by its success in the hospital under my charge.

“ ‘Sudorifics, opium, baths, blisters, astringents, and enemata : with respect to these medicines, as means of cure, I possess little confidence. In most cases, however, I have recourse to them, from the temporary relief which they afford. The subjoined return will show the result of my practice in dysentery for nearly eight months, in Kandy, namely, from the 3d April to the 13th November, 1820. A few of the cases, included in the return, had previously suffered under dysentery at Trincomale. Most of the cases were, however, primary attacks of the disease.

Admitted.	Discharged.	Died.	Remaining.
“ 70	57	7	6.” 185.

This return, Mr. Marshall allows, exhibits a smaller ratio of mortality than usually occurs among Europeans attacked with dysentery in Ceylon ; and we humbly conceive that such facts should have induced both him and the Inspector of Hospitals, to give trial to a measure which has been recommended by such able observers in other parts of the tropics, in both hemispheres.

The remaining short Chapters, on Tetanus, Berriherri, Cholera, and Ulcers, present nothing particularly interesting to European readers, and, therefore, we shall pass them over. Upon the whole, Mr. Marshall’s work, though it somewhat disappointed us in certain parts, is creditable to his talents as an observant and intelligent surgeon. We recommend the work to every young surgeon about to embark for our East India possessions.

IV.

Essays on Surgery and Midwifery ; with Practical Observations, and Select Cases. By JAMES BARLOW, Surgeon. One Volume, 8vo. pp. 417.

PERHAPS as daring and difficult operations in surgery were performed thirty years ago as now ; but they are, at present, frequently performed in country towns and even villages, where they would not have dreamt of half, or even a quarter of, a century ago. Medical and surgical science is therefore rapidly diffusing itself among, what have been termed, the lower orders of the profession, and this, we conceive, is a matter of far greater importance to society at large, than brilliant discoveries in knowledge, when that knowledge is confined in its practical application, to limited circles, or large cities. The provincial press has, of late years, exhibited unquestionable proofs of the respectable state of medicine and sur-

gery in the country, and we are disposed to think, that few surgeons in this proud metropolis would dislike to be considered the author of the work now open before us, though printed and composed in the humble town of Blackburn, in Lancashire. Mr. Barlow appears to be an old, an able, and an experienced practitioner, combining the ardent zeal of youth with the cautious judgment of age—having been long in the habit of attending, not only to the practical rules which experience and observation have supplied, but to the *principles* involved in their application and established by their success. Nothing can be more true, than that “the more the efforts of a practitioner in surgery, (and he might add, in *medicine*,) are directed by an accurate knowledge of physiology and anatomy (morbid as well as simple,) in their varied and interesting details, the greater will be the certainty of eventual and permanent respectability and success.” We have often, as well as Mr. Barlow, had occasion to deplore the too frequent neglect of those pursuits, which connect the attainment of skill with the study of science; but, with him also, we rejoice that the diffusion of knowledge, and the enactments of the Legislature, have now secured an increasing attention to every branch of professional information.

The volume before us embraces two very different and distinct subjects—lithotomy and midwifery. It is to the first of these only, that we shall direct our attention in the present article, reserving the latter for our next number.

1. The subject of lithotomy is preceded by some useful preliminary observations on certain disorders of the urinary organs connected with stone in the bladder, which we must not pass over unnoticed. Mr. B. justly remarks, that the anatomy, physiology, and morbid sympathies of the pelvic viscera, should be carefully studied by the operative, and also the medical surgeon. We all know that there is a progressive evolution which marks the range of human existence, and appears to govern the order in which diseases assail the different organs and structures of the body. The prostate gland and neck of the bladder, from their vascular texture and situation, are much exposed to disorder, as life advances. Among the principal causes, we may enumerate high living, constipation of the bowels, and excessive venery. These excite undue vascular action of the parts, and the prostate gland enlarges, partially blocking up, as it were, the orifice of the bladder, so that the urine seldom gets completely evacuated, and a sediment is left behind. Where a predisposition to form calculus exists, portions of gravel which pass the ureters, are retained in the cavity of this receptacle till a nucleus is formed, and a stone too large to pass the urethra, may thus be produced. Re-

tention of urine, under such circumstances, is not unusual, and the aid of the catheter becomes necessary. The symptoms of diseased prostate and calculi are so associated, that no diagnostic can be formed without an actual examination, either by the finger passed up the rectum, or by sounding the bladder. In cases where there was much pain or irritation in the bladder from the presence of calculi, or morbid affection of its coats, accompanied with irresistible efforts to micturate, and pain in the glans penis, or neck of the bladder, our author has found much benefit from injections, into the bladder, of solutions of opium and belladonna in mucilage of acacia, diluted with tepid water. We wonder that this measure is not more frequently resorted to, were it only to allay the acrid stimulating property of the urine, which acts so detrimentally on the too irritable lining of the bladder. Sometimes the introduction of a bougie is useful, in lessening this morbid irritability. In not a few instances, the prostate gland is invaded with irregular swelling, increasing the prostatic curve of the urethra, and thus distorting the passage, so as to cause permanent retention of urine. Sometimes our author has succeeded, in such cases, by employing a catheter less curved than ordinary—on other occasions, more bent, assisted by the finger in the rectum. Active inflammation of the prostate gland is another perplexing cause of retention. In these cases, the tender vessels of the urethra become so surcharged with blood, that on every attempt to introduce the catheter, the eyes of the instrument get blocked up, and no urine can pass.

“To obviate any obstruction in the catheter, I usually plug up the eyes of the instrument with wax before its introduction, and when the point has reached the fundus *vesicae*, I withdraw the stilet, and if the wax does not dissolve by the heat of the part in due time, I then place my mouth to the open end, and by blowing forcibly through the tube, the wax will be forced out, and the urine pass off without further interruption. In other cases, where the eyes of the catheter have not been previously plugged, and where the urine does not pass voluntarily, I adopt the same experiment, and generally with the same success.” 16.

In most cases of diseased prostate, or bladder-affections with retention, our author has been in the habit of keeping the *flexible pewter catheter* in the bladder, “by passing the instrument in the usual way, and then introducing a finger up the rectum, pushing it upwards, so that the concave part, near the point, will hook behind the os pubis, and remain permanently fixed.” It should be removed and cleaned, of course, once in six or eight days.

In over-distention of the bladder, and loss of power in its

muscular fibres, of some days duration, the catheter becomes an uncertain remedy, as the ureters and kidneys sometimes participate in the state of the bladder, their valvular apparatus becoming changed, and the secretory function suppressed. Mr. Barlow thinks that, if a dribbling of urine did not take place, the bladder would more frequently fall into gangrene than we find to be the case. Early and prompt attention on the part of the practitioner is necessary on such occasions, to prevent vesical and abdominal inflammation. If the bladder ulcerates towards the abdomen, the case is lost—but when the constitutional symptoms are not very grave, and the bladder gives way below that portion of the organ, which is screened by the peritoneum, “the surgeon should immediately proceed to make a dependent opening into the cellular membrane, where the extravasated urine is lodged, and evacuate the fluid; and to promote the healing of the wound of the bladder, a catheter should be kept constantly in the passage of the urethra, lest a fresh supply of urine from the ureters be accumulated in the cavity, and prevent the process of cure.

These cases require strict attention to the antiphlogistic course, besides mechanical aid. Bleeding, local or general, is necessary where there are pyrexial symptoms. The bowels should be emptied by brisk cathartics; and, if there exist much pain and irritation about the neck of the bladder, the tepid bath, and leeches are useful. A combination of the extract of conium, hyoscyamus, colocynth, and blue pill, may be given every night and morning, with effervescing draughts, antimonials, and digitalis, in the day. Our author has experienced great benefit, in such cases, from alternately injecting large portions of warm and cold water up the rectum. But we dare not dwell any longer on the judicious practical observations contained in these preliminaries.

The next subject discussed by Mr. Barlow, is the symptomatology of stone in the bladder, together with the method of sounding. This section, however, we must pass over, though containing much sound remark. Our author then gives a succinct account of the different modes of operating for the stone, beginning with the Celsian, or apparatus minor, and ending with that by the knife alone. On each method, our author makes some remarks of his own. The Celsian operation, or “cutting on the gripe,” Mr. Barlow is induced to think, by no means an uneligible operation, when confined to young subjects. “The method is simple, and less burthened with instruments than any other plan of operation by the lateral passage, and greatly resembles the mode adopted by Cheselden and Raw.” Celsus appears to have been well aware of the danger attending a small wound, and the retention of urine, which sometimes succeeds an operation.

"Proximo die," says he "si spiritus difficiliter redditur, si urina non excedit, si locus circa pubem mature intumuit, scire licet, in vesica sanguinem concretum remansisse. Igitur, demissis eodem modo digitis, leniter pertractanda vesica est, et discutienda, si qua coierunt: quo sit, ut per vulnus postea procedant." 69.

He recommends the stone to be broken, if too large, a practice invented by Ammonius, about 150 years subsequent to Hippocrates, and thence called lithotomy, or stone-cutting.* Passing over the apparatus major and those "horrid instruments called dilators," our author comes to the high operation, lately revived in this country. He properly observes, that as this operation has, for a long time, been abandoned, we can only judge of its success, from the records of those times in which it was in repute, compared with the present lateral operation.

"And if I mistake not," says Mr. B. "the success attending the High Operation, as practised both by the English and French sur-

* "Si quando autem is major non videtur, nisi rupta cervice, extrahi posse, findendus est, cujus repertor Ammonius, ob id ~~ab Ammonio~~ cognominatus est." *Cels. lib. vii. p. 44.*

The writings of Celsus may be considered as exhibiting an epitome of the medical and surgical knowledge of the Ancients at the time he wrote. We have always been more surprised at the intrepidity of their surgery, than the depth of their physic. Considering that they were ignorant of the circulation of the blood, we cannot but admire their bravery in extirpating the thyroid gland—at least, Celsus describes the removal of bronchocele by the knife.

"At in cervice, inter cutem et asperam arteriam, tumor increscit (bronchocele Græci vocant) quo, modo caro hebes, modo humor aliquis, melle aqueæ similis, includitur. ***Potest autem adurentibus medicamentis curari. **Sed scalpelli curatio brevior est. Medio tumore una linea inciditur usque ad tunicam: deinde vitiosus sinus ab integro corpore digito separatur, totusque cum velamento suo eximitur."

Lib. vii. Sec. 13.

It is very remarkable, that the Ancients should have been in the habit of using the ligature to vessels that were divided in wounds, and yet that they, and we may say the moderns, till comparatively of late, should never have thought of tying the vessels in amputation. That the ligature was familiar to Celsus, is proved by the following passage. After describing various astringents for stopping hæmorrhage from wounds, he goes on to say:—

"Quod si illa quoque profluvio vincuntur, venæ (by which he means all blood-vessels) quæ sanguinem fundunt apprehendendæ, circaque id, quod ictum est, duobus locis deligandæ, intercidendæque sunt, ut et in se ipsæ coeant, et nihilo-minus ora preclusa habeant."—*Lib. v. de Veneribus*. Here is the modern operation of tying the artery in two places, and dividing it between the ligatures, in the most clear and unequivocal language. Both the above extracts show, that Mr. S. Cooper is not justified in saying, (art. Hæmorrhage,) that "the Ancients, ignorant how to stop bleeding, were afraid to cut out the most trivial tumour."—*Dict. 3d Ed. p. 518.*

geons at that period, equalled, if not surpassed those of the same hospitals, in both countries at the present day, when performed under similar circumstances." 87.

Although our author thinks that it becomes a question whether the high or the lateral operation is to be preferred, yet he properly remarks that neither of them should be indiscriminately and exclusively adhered to—"for each has its advantages of being peculiarly adapted to a distinct mode of operating, according to circumstances." We have seen both operations performed, and we have conversed with several of the first surgeons in this metropolis respecting the high operation; but they all seem to agree that it will never come into general use, but should be limited to those cases where the diseased state of the prostate gland, or the magnitude of the calculus presents insuperable objections to the lateral mode of extraction.

Mr. Barlow appears to be sceptical as to the encystment of stones in the bladder. No such event has occurred to him. He is induced to think that the incidental embarrassments sometimes attending the operation of lithotomy are too frequently imputed to such morbid occurrences, as an apology for inadvertence or unskilful practice. It is certain that many authors have doubted the existence of sacculation—among others, Rousset, Collet, and Tolet; but the circumstance has been attested by too many qualified and credible witnesses to be now disbelieved. Stones, we know, are liable to lodge in the angle behind the prostate gland, and there they may become encysted. Mr. Barlow has furnished us with a plate of a lever or scoop, which appears to be well calculated for exploring the cavity of the bladder, and detaching sacculated stones.

Our author gives a concise history, and description of the lateral operation, to which we refer our surgical readers. At page 126-7, we have the following important remarks:—

"The chief object to be attained in lithotomy, by whatever form of instrument it be accomplished, is to make the incision from its commencement in the integuments below the scrotum to its termination below the anus, and through the intervening muscles, prostate gland, and neck of the bladder, to an extent proportioned to the size of the patient, and sufficiently to admit the forceps, and extraction of the stone without bruising or lacerating the contiguous parts. But this cannot be effected unless the whole of the incision be made more extensively than what most modern operators are in the habit of doing, and hence, I am persuaded, results the disparity of success.

"An ample division of the parts concerned in the operation always facilitates the extraction of the stone, discharge of urine, or blood, from the wound, prevents subsequent inflammation, and greatly expedites the patient's recovery.

"On comparing the cutting part of most gorgets now in use, with the extent of the prostate gland, from its apex to the base, where it surrounds the cervix vesicæ: it will be evident that such construction is inadequate to effect a complete section of this organ even in its natural state; but when enlarged by disease, as it frequently is in calculous affections, such defect is still more manifest, and the danger resulting is proportionably greater. Under such circumstances is it possible, without incurring danger to the patient, to extract a stone from the bladder, the dimensions of which, together with the blades of the forceps, far exceed that of the wound through which it should pass with freedom? I have more than once seen great violence used in extracting the stone through an inadequate incision, and was present at an operation in St. Bartholomew's Hospital in London, where the operator used such force in extracting the stone, that he would have fallen backwards had he not been supported at the time by his assistants. It is easy to foretell the fate of a patient so unfortunately circumstanced.

"These reflections are intended to lead surgeons to pause on the propriety of using the gorget, and to induce them to select an instrument, (let its name be what it may,) which will invariably make a section of the prostate gland sufficiently extensive for the free extraction of the stone, without going beyond the limits of safety; for it should always be remembered, that the edge of the gorget can never be made to cut the substance of the gland freely, owing in part to its receding by the impulse of the instrument, and leading the surgeon to suppose that he has completed a section of this organ, when in reality he has merely divided its apex." 128.

It is perhaps to be lamented, as our author observes, that human ingenuity should have been so much exercised in the construction of an instrument (the gorget) that is designed to substitute mechanism for anatomical knowledge, and the skill of the cutler for the dexterity of the surgeon. We know, indeed, that in the hand of a COOPER, any instrument will do the business well—but Heaven defend us from the dark and direful plunge of the gorget, when directed by any but the hand of a master! Mr. Barlow considers that, when the bulk of the stone equals that of a hen's egg, the wound by the gorget must be clearly inadequate to admit the stone and mouth of the forceps, without lacerating the cervix vesicæ, or wounding the adjacent parts. These accidents are known to have occurred in the hands of eminent surgeons.

The instrument which Mr. Barlow has mostly used in lithotomy, is the Bistouri Caché of Frere Comé, with an additional beak to prevent its injuring the bladder. He has operated on upwards of sixty patients for the stone with this instrument, (and one hereafter to be mentioned as a substitute for the gorget,) out of which number two only died. This we consider as very great success indeed.

"Objections have been advanced by writers regarding the simplicity and form of the bistouri, and manner of dividing the parts concerned in the operation. Truth, however, urges me to state, that I have neither found difficulty nor danger attending its application; as the success I have experienced will best decide. I have operated with it both on men and women, from little more than two years old, to upwards of seventy, and extracted stones more than five ounces in weight. It will not then, I trust, be hereafter said, that the bistouri caché is an instrument in any respect less eligible or safe than either the gorget or knife, when used with judgment." P. 131.

Our author has given a plate of a beaked lithotomy knife or bistoury, which appears to him to combine in itself all the advantages of the *gorget*, *knife*, and *probe-pointed bistoury*, without their imperfection. He has operated with this instrument several times both on old and young subjects with perfect ease and success; and from its simplicity and manner of dividing the necessary parts, he has no doubt that it will hereafter supersede every other instrument yet invented. We must refer to the plate for a delineation of this knife.

After-Treatment. This is of the utmost consequence. Hæmorrhage and inflammation are the two principal objects of our attention. The state of the bladder should be frequently inspected, and care taken that it does not become distended. A low diet, cool apartment, and daily injection, should be prescribed. Should restlessness, anxiety, quick pulse, thirst, pain, and tension in the public region occur, every means of subduing inflammation should be pursued. Our author properly remarks, that a feeble pulse is a frequent attendant on all abdominal inflammations—the practitioner ought not therefore to be deterred from the use of the lancet, by such fallacious symptoms.*

Hæmorrhage has never occurred in our author's practice, though he often hears of it in the practice of others. He thinks it can only happen from unskilfulness or some unusual distribution of the blood-vessels. We shall here present our

* Depletion, indeed, in such cases, ought to be persevered in while life remains, or the bad symptoms continue. We were lately in attendance with Sir Astley Cooper, where pelvic and peritoneal inflammation continued long and obstinate—indeed, till there were strong indications of abdominal effusion—yet we used the lancet when the pulse was devoid of all strength and hardness, and when the gentleman was blanched by previous venesections. Success ultimately crowned our efforts. The clear judgment of Sir A. Cooper was as evident in this dilemma, as his dexterity in the operation.

readers with a sketch of a case related by our author, which was attended with some unusual symptoms, and has called forth several practical remarks.

Case. In the year 1806, Mr. Barlow was consulted by a stout, corpulent, robust man, then about 60 years of age, in consequence of great pain in passing urine, and propulsive efforts to expel it. For some years previously he had occasionally discharged both blood and mucus from the urethra. Sounding was proposed, but rejected; and the patient did not again present himself till 1811, when Mr. B. found him with a two days retention of urine, considerable pain in the region of the bladder with tension, and a dark livid colour of the scrotum. The catheter was introduced, and its point struck against a stone. Nearly two quarts of dark-coloured urine were drawn off, and afforded temporary relief. The warm bath, laxative glysters, and gentle aperients considerably mitigated the soreness in the hypogastric region—still the retention of urine continued, caused, as was imagined, by the presence of a calculus lodged in the vicinity of the neck of the bladder. The urine was drawn off twice a day during several successive days. A flexible metallic catheter was now introduced, and hooked upon the pubis, with a cork fitted to the aperture so that the patient could evacuate his water *ad libitum*.

The prostate gland was found to be greatly enlarged, and in a very rigid condition.* Notwithstanding strict antiphlogistic measures, there remained much soreness in the pubic region, with quick pulse and fever, and therefore, lithotomy was not proposed. But these symptoms gradually abated, and the operation was deemed admissible.† On the 17th November the stone was extracted, in the pre-

* "The presence of a stone in the bladder may generally, by attention to the symptoms, be distinguished from an irritable or indurated state of that viscus; for in the former affection, and during the discharge of urine, the pain increases at the glans penis till the last drop is voided, and subsides gradually; while in the latter case, relief is observed to take place in a reverse ratio, for as soon as the water begins to flow the patient is somewhat relieved, and when the whole is evacuated, there is comparatively little pain left, and the expansive functions of the bladder are sooner restored." 143.

† Our author observes, that simple irritation excited by calculi is not an insuperable objection to lithotomy, *when performed during an interval of pain*. The existence, however, of nephritic affection, or insidious morbid action lurking in any organ of importance, increases the danger of the operation, which should be delayed, if possible, till such symptoms are removed, and the irritation subside.

sence of two assisting surgeons. As the operation was one of no common difficulty, we shall give it in the words of the author himself.

“The first stages of the operation were conducted in the usual manner, and with tolerable facility. On the membranous portion of the urethra being laid open with the scalpel to the commencement of the prostate gland, the beak of the bistouri caché was inserted into the groove of the staff, the handle of which was taken hold of with the left hand, and raised from the right groin of the patient to nearly a right angle with the body; the bistouri was then pushed gently forwards into the bladder and the staff taken out; the cutting edge being raised from its sheath and turned rather laterally towards the left ischia of the patient, it was withdrawn nearly in a horizontal direction; and in executing this step of the operation, I perceived an unusual resistance and grating, as if cutting through a cartilaginous substance.

“The fore-finger of the left-hand was now passed as high as possible into the bladder, through the opening made by the bistouri, and with difficulty the surface of a stone was felt; for owing to the patient's state of corpulency, the chief part of the hand became buried in the wound.

“The forceps were then carefully introduced by the side of the fingers, which served as a guide to seize the stone in the bladder. The fingers being withdrawn, the stone was taken hold of by the blades; but from the great expansion of the handles, I was led to believe that the calculus was either very large, or otherwise seized in an unfavourable direction. To ascertain the fact, I endeavoured to reach the stone, by insinuating the finger betwixt the extended blades of the forceps, but was prevented by the bulk of the prostate gland; for it appeared to occupy so considerable a space, that its extent could not be wholly traced by the finger in any direction. I therefore judged it expedient to quit the stone, and attempt to seize it in a less diameter, and after using every possible means in my power, I was obliged to abandon this project and the extent and rigidity of the prostate, and its unyielding structure, induced me to enlarge the incision. On every attempt to extract the stone the body of the gland was brought forwards into sight, and appeared to completely wedge up the space betwixt the two *rami ischiî*. Thus situated, and while the left-hand was employed in drawing forwards the forceps along with the stone, the right was engaged in dilating* the wound with the scalpel, in a line with the external in-

* “Though in this instance, the incision made by the bistouri caché was inadequate to effect a complete division of the prostate gland, to afford the stone a free exit; yet its extent was far greater than what could be made with the gorget; hence may be seen the advantage which the bistouri possesses over the gorget; for the surgeon has it in his power to adapt the blade of the bistouri to the exigency of every individual case, prior to its introduction into the bladder, and should the stone be found either of unusual

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cision, where the resistance opposed the greatest obstacle ; in this manner sufficient room was made, and the transmission of the stone effected. It was of an oval shape, and its long diameter 2.25, and its short 1.75 inches. A female sound was then passed into the bladder, and another stone detected larger than the first, and which was extracted with proportionate difficulty. It was also oval, but measured 2.6 inches one way, and 2.1 the other. From the different situations in which I had an opportunity of recognizing the prostate gland of this patient, both by the finger passed up the rectum, and through the wound in perineo, its lateral lobes evidently pressed considerably on the rectum, and there remained a considerable oozing of blood, which appeared to come from the divided edges of the prostate gland : to suppress which a canula, with a piece of sponge wrapped round it, was introduced into the wound, and by its pressure on the incised portions of the gland, prevented the blood from making its way into the bladder, and soon stopped the bleeding." P. 147.

On being put to bed, sixty drops of tincture of opium were given him ; but it did not procure sleep. He appeared restless in the evening, with quick pulse ; but there was no tension, or hæmorrhage, the water passing *guttatim* through the canula. He was put into the warm bath for twenty-five minutes, which afforded temporary relief, but did not reduce the pulse. The opiate was repeated—no sleep through the night. Aperients, glysters, and the warm bath were exhibited every day for several successive days.

" On the 20th instant, three days after the operation, a degree of soreness and tension manifested itself in the lower part of the abdomen, which extended along the urethra, and assumed the appearance of peritoneal inflammation. But on a minute investigation was convinced that the tension of the abdomen was caused by parts of the wound connected with the operation being diseased with inflammation, which wholly prevented the evacuation of the bladder, and the voluntary power of the abdominal muscles propelling the urine through the aperture.* Without hesita-

magnitude, or less than what was suspected prior to commencing the operation, the screw of the handle may be elevated or depressed : the apex is in the bladder, and the cutting edge regulated to any extent.

* " I am induced to believe, that *Ischuria Venialis*, subsequent operation of lithotomy, is not a very rare occurrence, but is the primary cause of Peritoneal Inflammation, though scarcely by the authors who have written on the after-treatment of patients symptoms at first view bear much analogy to each other, it is on the surgeon, in every instance of abdominal action to it, re-

passed a female catheter up the wound in perineo into the cavity of the bladder, and evacuated more than a quart of limpid urine, of healthy appearance. This mode of assisting nature in relieving herself, was found necessary to be repeated every eight or ten hours for several succeeding days, until the tension and inflammation of the parts connected with the wound had subsided; after which the urine passed through the artificial aperture with comparative freedom." 149.

In about three weeks from the date of the operation a little urine came away at intervals by the urethra, and the man seemed to be recovering, when a new train of symptoms came on, accompanied with inflammation and suppuration of the right testicle, which produced some fever and irritation in the system; but this was got over; and in ten weeks the patient returned home apparently in good health—the size of the prostate gland, as examined, *per rectum*, much diminished. It is probable, our author thinks, that, had the gorget been used in this case, it would not have divided more than half of the left portion of the prostate gland, and that consequently the incision must have been quite inadequate to the free extraction of the calculus, and probably too small to admit the blades of the forceps without much violence, or even laceration.

For the curious case of lithotomy in a female, complicated with procedentia uteri, procedentia vesicæ, and inversio vaginæ, we must refer to the volume itself. The operations and management do great credit to the surgeon.

The surgical half of this volume concludes with a case of tumour on the nose, introduced by some ingenious physiological remarks on the analogy between animals and vegetables, as well in regard to their structure and functions, as their diseases. There can be no doubt, indeed, that one common principle of vitality pervades the whole of the animal, vegetable, and perhaps we should not be wrong in including, the mineral kingdom. It is extremely difficult to say where life ceases to exist in any thing we see in air, on earth, or in the ocean. But we will not bewilder ourselves

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in speculations on those subjects which are apparently, or rather *really*, beyond our reach, while so much remains to be learnt that is possible to be accomplished, and useful when acquired. Life is so short, and so great a portion of that life taken up with the necessary functions for which man is destined in this world, that we deem it imprudent, particularly for medical men, to dedicate more than a very limited portion of time to other than the main objects of their professional researches.*

The subject of the tumour in question, was a respectable schoolmaster of Blackburn, who consulted our author "respecting a morbid rubecund tumour seated on his nose," which had been increasing for thirteen years past.

"The tumour extended from the superior part of the nose over the *alæ nasi* and apex on both sides down to the lower part of the upper lip to such an extent, that the nostrils and mouth were nearly closed, and when laid down to sleep his breathing was greatly obstructed, unless the tumour was supported by a folding of the pillow placed under it; and when attempting to drink, it became in part immersed in the liquid, unless it was raised by the hand.

"At the lower part of the tumour, rather parallel with the septum narium, the cuticular surface of one projecting tubercle was excoriated, from which there was an offensive exudation." 171.

Our author proposed a total eradication of this disgusting excrescence by the knife. Keeping the natural figure of the nose in his mind, he began the dissection at the superior part of the tumour, as high as the dorsal arch, continuing the incision along the *alæ* down to the apex on both sides, close to the periosteum and perichondrium, steadily pursuing this project till the whole of the morbid mass was eradicated. The operation did not occupy much time, nor did the patient complain of any pain during the removal of the tumour. The wound was allowed to bleed without interruption, and the hæmorrhage ceased in a few minutes, except from one artery, which required a ligature. The whole surface of the sore was healed in three weeks, and no trace of cicatrix could be observed, unless by a very near inspection. On dissection, this anomalous tumour exhibited a vascular appearance, and assumed a deep red and livid hue, its structure not corresponding in appearance with any distinct species of tumour, which has been described by authors. Mr. Barlow has given two plates, one representing the pa-

* We do not mean the search after patients, which some of our brethren, we are sorry to say, consider the "main objects" of their pursuits.

tient before, and the other after, the operation. The contrast is most striking.

Our readers will have seen, by this time, that the portion of the volume which we have analyzed does credit to provincial surgery. In our next we shall bring forward some interesting obstetrical information.

V.

Observations on those Diseases of Females which are attended by Discharges. Illustrated by Copper-plates of the Discharges. By CHARLES MANSFIELD CLARKE, Member of the Royal College of Surgeons, London. Part II. 8vo. pp. 242. London, 1821.

[Second Analytical Article, continued from No. 8, p. 778, Vol. II.]

To those who have properly considered the nature and objects of this Journal, it will be unnecessary to give any reason why our analyses are sometimes carried to an unusual length, as compared with similar articles in other periodicals. It is quite out of the question that we can compete with our swift-footed monthly cotemporaries, in bringing the *earliest samples* of medical lore into the literary market. It is the object and office of these *avant-couriers* to whet the appetites of the reading public—it is ours to lay more substantial fare before them—and to constitute a medium between the ponderous octavo itself, and the multiform critiques that “spread their light wings,” and waft its condemnation or praises through the medical republic. It will always be our anxious wish to proportion our reviews to the value and importance of the works reviewed, though we cannot hope, in so doing, to give entire satisfaction to all parties—a consummation that, however devoutly it is to be wished, can never be rationally expected in this sublunary scene. We shall do what we think best, and appeal to old CHRONOS for judgment.

In our first analysis of Mr. Clarke’s work, we concluded the subject of “Watery Discharge.” We now come to the third and last chapter, which treats of—“the Purulent Discharge.” The characters of this, are “a heavy, yellowish, opaque fluid, possessing little tenacity.” Though small in quantity as compared with the watery discharge, it is far more exhausting to the constitution. Pus may be secreted from membranes without breach of surface, and is then unmixed with blood, which

appears, after any violence, where the discharge is from an ulcerated surface—a tolerably fair criterion, Mr. C. thinks, as to whether the pus is secreted by a membrane in a state of inflammation or ulceration. But as a nice distinction of these cases is not always easy, our author first points out those cases of purulent discharge, appearing to arise from the female mucous membranes in a state of inflammation, and, secondly, those other cases, where the pus proceeds from an ulcerated surface.

The mucous membranes, lining the vagina, the uterus, and the fallopian tubes, are very differently affected during inflammation. In the two latter, coagulating lymph is generally extravasated, when the inflammatory action runs high. In painful menstruation, (inflammation of the mucous membrane of the uterus) flakes of coagulating lymph are almost always thrown off—in some cases forming accurate casts of the cavity; and this has happened in the fallopian tube also. Sometimes, however, the uterine mucous membrane will secrete pus, and this being discharged *per vaginam*, will render it doubtful whence it proceeds. At other times, the purulent secretion will be retained in utero, in consequence of adhesive inflammation of the cervix uteri. Coagulable lymph is rarely the product of vaginal inflammation—pus is produced by a very slight phlogosis there.

1. *Purulent Secretion from the Uterine Lining.* When this finds its way readily into the vagina, there will be few other symptoms than a sense of heat and uneasiness in the passages. In some cases, where the vagina is wholly free from inflammation, the patient experiences acute pain in the back and bottom of the abdomen, which being severe and constant, the practitioner examines, and finds the uterus tender to the touch, its size being also increased, resembling the viscus when impregnated. The uterus enlarging, the case is still doubtful, till suddenly, a large quantity of offensive pus escapes, and relief immediately follows. It is no wonder that an unfavourable prognosis is sometimes made in these cases, the practitioner fearing (and with reason) that some morbid alteration of structure is taking place in the uterus. Two or three cases are here related in illustration. In one case, the uterus burst and discharged the matter into the abdomen, death being the necessary result. In the other case, the matter found its way into the rectum, and was voided by stool with ultimate recovery.

Treatment. The symptoms will naturally point to the proper treatment—which is that employed in removing in-

flammation. Cup the sacral region—or apply leeches to the groins once a week—use the hip-bath night and morning—throw warm water up the vagina—give opium or other narcotics to diminish sensibility, while purgatives are to be employed to prevent constipation, and lessen inflammatory action. If the uterus attain the size of the fourth month of pregnancy, it may be presumed that the disease is *not* carcinoma—no tumour of this kind having ever attained such a size in our author's experience. The rapidity of purulent enlargement of the uterus, comparatively with that of fleshy tubercle, will throw some light on the diagnosis; and if there be reason to suppose the enlargement depends on purulent accumulation, “it may be adviseable, gently to introduce the extremity of a bougie, or of a male catheter, into the os uteri, and to pass it outwards, until it has reached the cavity of the uterus.”

II. *Vaginal Inflammation.* The symptoms attending common and specific inflammation of the vaginal membrane are nearly the same, and are pretty well known. Attempts indeed, have been made to distinguish between the purulent discharge of gonorrhœa and of common inflammation; but such pretensions are generally professed for self-interested purposes. The lymphatic glands of the groin, Mr. Clarke thinks, are more disposed to enlarge and suppurate in gonorrhœal, than common inflammation.

“In simple inflammation of the mucous membrane of the vagina, the purulent discharge being established in large quantity, the inflammatory symptoms frequently subside very rapidly, after which a termination is put to the secretion; the parts returning to a state of health, provided there be no acting cause producing its continuance; in which case the symptoms will continue until its removal, when they will speedily cease.

“In the case arising from specific contagion, the duration of the disease is greater; and the discharge, once established, continues for weeks, or perhaps for months, although not always accompanied by the other local symptoms.” 169.

Mr. C. justly remarks, that it is impossible to determine at what period of the disease the power of communicating infection ceases. A prudent practitioner will be careful to give no decisive opinion on the subject, especially as regards the non-existence of this power—for as Mr. Clarke properly observes, “no person is secure from danger, who indulges in intercourse with a woman so long as the discharge continues.”

“It is a curious fact, that in young subjects, both male and female, purulent discharge from the urethra and from the vagina takes place in consequence of the existence of irritation in distant parts; thus.

during dentition, whilst the capsule of the tooth, or the gum covering it, is violently pressed upon by the crown of the tooth, the above circumstance is not unusual; medical men, therefore, should be careful to avoid denominating this symptom venereal; since, were it actually so, it would lead to nothing useful in the treatment; and discussions, highly destructive of the peace of families, might be thereby introduced." 170.

Mr. Clarke leaves, of course, the consideration of gonorrhæal inflammation to those writers who have made it the subject of distinct monographs; but, he gives it as his opinion, *en passant*, that the treatment of venereal gonorrhœa, differs little, if at all, from that which is applicable to common inflammation. As far as temperance, rest, and antiphlogistic measures are concerned, this may be true; but, would bals. copaiba and cubebs be applicable to *common* inflammation of the lining-membrane of the urethra?—We should not like to try the experiment.

When the inflammatory symptoms have subsided, and a purulent discharge continues from relaxation or mal-habit of secretion, then our author recommends the cinchona, and copaiva; with astringent injections. Respecting the possibility of secondary symptoms following gonorrhœa, our author seems undecided—at least, he declines to offer an opinion upon the subject.

"He has certainly seen copper-coloured spots on the bodies of patients, who have laboured under gonorrhœa virulenta, removeable only by the oxy muriate of mercury and sarsaparilla: but he thinks that he has seen similar appearances upon the skin of patients, whose chastity could not be suspected." 173.

Mr. Clarke has known several instances of married women, who had laboured under a purulent discharge, (possibly the effect of contagion.) bringing forth children prematurely, some dead, and others having dark-coloured furfuraceous cuticle in different parts of the body, which yielded only to mild preparations of mercury.

Modern experience has put the matter quite beyond a doubt, that secondary symptoms will occasionally follow gonorrhœa; but the chances are so much against the accident, that we should never dream of giving mercury as a preventive. Indeed, we are disposed to believe that, were mercury given as a preventive, there would be more secondary symptoms than if omitted, in consequence of imprudence in diet, and exposure to wet or cold, which, it is well known, are very injurious where mercury is in administration.

Abscesses sometimes occur in the cellular membrane surrounding the vagina, and do not admit of the same modes of cure, that are applicable to other purulent discharges. Such

cases, however, are very rare. At the commencement of the complaint, there is nothing to discriminate it. Inflammatory symptoms are followed by a discharge of matter, and the patient supposes herself well. But after some time, a sense of fullness and pressure is experienced, and pus again escapes. On examination, a soft tumour will be found behind the vagina, which, being pressed, discharges pus. A continuance of this state impairs the health, and the neighbouring parts become more than usually irritable. Indeed, it has only occurred in women of lax fibre and irritable constitution. In cases of this kind, the abscess generally breaks into the vagina high up, which aggravates the inconvenience, the abscess being seldom emptied of its contents, which become, from retention, highly offensive. These cases are very unmanageable. No astringents can restrain the discharge—no stimulants can reach the cavity of the abscess—and it is hazardous to attempt an operation, unless the most depending part of the abscess should be situated so low, as to be capable of being brought within sight of the surgeon. Mr. Clarke relates three cases. In two of them, there was a cure effected by remedies adapted to improve the general health. In the third, he failed to remove the diseases.

III. Ulceration of the Os and Cervix Uteri. Our author has long been in the habit of describing two different kinds of ulceration of the uterus—the one denominated the “corroding,” the other, the “carcinomatous” ulcer of the os uteri. They are both malign.

Corroding Ulcer. This disease usually takes place about the cessation of the catamenia. About this period, the uterus naturally attains a larger size than ordinary, and is not reduced to its usual volume, until the balance of the constitution is restored.

Inflammation attacking a part of firm texture, as the os uteri, an extravasation of coagulable lymph is more frequently formed than abscess, occasioning a thickening of the part. Sometimes this proceeds to ulceration—sometimes the inflammation recedes, leaving only an induration of the part.

“In the corroding ulcer of the os uteri, the membrane which covers it first takes on disease, and very shortly afterward the ulcer extends to the whole circumference of the opening, and to the parts immediately beneath it; so that the natural shape of the os uteri is destroyed. Thence the ulceration proceeds to the cervix, and consumes it; so that, if the patient should die in this stage of the disease, nothing will be found, after death, but the body and the fundus of the uterus. Sometimes the disease does not stop here, but before the patient is destroyed, the absorbents employed in the process of

... will have taken up nearly the whole body of the uterus, and only the more than the minimum will remain." 188.

It does not happen in the carcinomatous ulcer, by which the patient is worn down before there is time for such a degree of destruction to take place. "If an examination be made, the irregularity of the breach of surface may be readily distinguished, and the extent of the disease ascertained; but no hardening of the parts will be present, no thickening, no deposit of new matter." The appearances, post mortem, will correspond. From our excellent author's symptomatology, we can make the following extract.

"The menstruous secretion, it has been already said, has ceased; instead a yellowish discharge escapes, perhaps trifling in quantity, and now and then mixed with a streak of blood; by degrees the sense of warmth is converted into a glowing heat, affecting the region of the uterus; and it is by no means uncommon with patients to state, that they feel 'as if a hot coal was within them.'

"As this sensation of heat increases, so the quantity of the discharge increases, the ulceration extending more rapidly.

"The perpetual drain necessarily diminishes the quantity of circulating blood; in consequence of which the countenance becomes pallid, and weakness of the whole system is produced." 191.

Had the disease been carcinomatous ulceration, lancinating pain would have been the most prominent feature of the complaint. But this distressing symptom is comparatively absent in the ulceration under discussion.

"When a finger, introduced into the vagina, is made to pass over the ulceration, the patient does not complain of pain; she does not suddenly shrink from pressure, as when carcinomatous ulceration is present: but if asked what sensation she experiences, she will commonly reply, that she has a sense of soreness." 192.

Still the disease in question is as uniformly fatal as carcinoma uteri; but it will last during a much longer time, unless the fatal termination is hastened by hæmorrhage.

Treatment. Although the uterus performs no office in the constitution when menstruation has ceased, yet it is liable to morbid changes, that too often involve the constitution in destruction. Ulceration having once commenced in the uterus, this organ never, in our author's experience, recovers its healthy structure; "but increased action of the blood-vessels of the os uteri, which would eventually terminate in ulceration, may probably be diminished or controlled, so that no ulceration may take place, and, by such a mode of treatment, much advantage may be gained."

"Whenever, therefore, a patient in whom the menstruous secretion has recently ceased, complains of an increase of heat in the

lower part of the back, or of the abdomen, or in the parts of generation themselves, a prudent practitioner, foreseeing the probable result, will direct the loss of some blood from the neighbouring parts. The most precise mode of obtaining this blood will be by cupping; although, if the patient be averse to the operation, leeches may be applied; but, upon the whole, they do not afford the same certain and immediate relief, neither can the quantity of blood removed by them be so exactly estimated." 194.

The operation should be repeated at the termination of a fortnight or three weeks, and if the sense of heat should continue, a still further loss should be directed—since temporary weakness is the only disadvantage which can accrue. General bleedings are not proper of course. The warm hip-bath twice a day is highly serviceable, and some of the warm water may be thrown up the vagina—both processes are equally beneficial in the indurated and ulcerated stages of the complaint.

"Saline purgatives, exhibited in very small doses, possess not only the power of allaying inflammation, by the watery secretions which they produce from the intestines, but they appear also to possess a specific power of tranquillizing the system, when in a state of disturbance and increased action, even when they produce very little sensible effect." 196.

Small doses of the *sulphas magnesiae vel potassae* may be exhibited twice a day, in combination with moderate doses of *conium* or *hyoscyamus*. Mr. Clarke does not object to the use of *sarsaparilla* or other alterative, provided such medicines do not derange the functions of the stomach, or impair the powers of the constitution. An abstemious diet should be enjoined, as fish, puddings, boiled fruits, and vegetables; and all excitants religiously avoided.

Even in the second stage, when ulceration is proceeding, and the patient is already weakened by the purulent discharge, what supports that ulceration but the inflammatory process? What remedies are likely to be more serviceable than those which retard it? It at length, however, happens that the patient becomes so debilitated by the purulent secretion that she is in danger of sinking from its effects. Mild astringent injections must then be thrown up into the vagina. *Hæmorrhage* may arise, and then still stronger applications are necessary, as *alum* in decoct. *querci vel granati*. If this should fail, solutions of sulphate of copper, or even nitrate of silver must be employed. The horizontal position—and small doses of the *acidum sulphuricum* in a mixture containing equal parts of decoct. *cinchonæ* and *infus. rosæ*, will be found proper auxiliaries.

IV. *Ulcerated Carcinoma of the Rectum.* The vicinity and sympathy between the rectum and uterus, will render it sometimes difficult to determine which part is affected, without an accurate inquiry and examination. The uterus is more liable to cancer than the rectum— and this should be borne in mind. In the early stage of carcinoma recti there is a mucous discharge, which gradually becomes purulent, and this appearance may lead us to suspect fistula, but examination puts the question to rest.

“If the finger of the practitioner be carried into the rectum, it will be girt by a constriction of considerable thickness, through which it cannot be passed; and if any attempt is made to surmount the difficulty by violence, the patient will suffer excruciating pain, and a discharge of blood will be the consequence of such a rude inquiry.” P. 203.

It is useless to be too anxious to ascertain the extent of the disease. A small carcinomatous thickening of the intestinal canal is as fatal as that of a larger portion. A carcinoma affecting not more than a quarter of an inch of the rectum may, by obstructing the passage of the *feces*, cause a distension of the whole colon, and fatal inflammation, the consequence of that distension—a carcinoma of great extent can do no more.

In common ulceration the part is absorbed—in carcinomatous, new matter is deposited, as the old is removed, and thus the thickening and destructive processes proceed simultaneously. It is evident that the rectum cannot be kept at rest; and if the constipation be not viewed in relation to its proper cause, and the patient be exposed to the action of frequent purgatives, the symptoms will be aggravated by the means employed to alleviate them. The following melancholy picture is not overcharged, as we have too often had opportunities of verifying its correctness.

“All the symptoms which attend the first stage of this disease, will be found to exist in a greater degree in the second. The darting pain will be increased both in frequency and in violence; the action of the heart will be greatly and permanently accelerated; the functions of the stomach will become more and more impaired; vomiting will be almost constantly present; temporary relief will be found only in opium; and permanent rest only in the grave. In the progress of the ulceration, blood-vessels will be exposed which will pour out, according to their size, a larger or a smaller quantity of blood: and happy would it be for the patient if such hæmorrhage should prove fatal; but such an event is hardly to be expected; and, unless in parts more abundantly supplied with blood than the rectum, such an occurrence is seldom met with.” 207.

As nearly the same treatment is necessary in this case as in ulcerated carcinoma of the uterus, we shall proceed at once to the latter subject.

V. Ulcerated Carcinoma Uteri. The carcinomatous *tumour* of the cervix uteri has been treated of in our author's former volume, to which we must refer the reader. A woman may live many years under such circumstances, provided she submits to proper rules; but sometimes our best efforts fail, and the ulcerative process takes place, on a more or less extended surface. In the latter case, the disease will be tedious—in the former, the fatal termination will be rapid. It ought to be borne in mind, however, that the ulceration goes on more rapidly at first, than in the progress of the disease—owing probably to weakened power of absorption in the latter period, keeping a ratio with the general decline of the powers of life.

“Thus a number of instances will be found, in which the patient will exist in a state of extreme weakness during many weeks, or even months, contrary to the expectations of the medical attendant. Spontaneous bleedings from the ulcerated surface producing more sudden debility, will have the same effect in retarding the progress of the disorder.” 212.

In an early stage of the ulceration, it is not unusual for the patient to complain of a puffy and enlarged state of the external organs—owing to the increased action of the neighbouring vessels. A great degree of itching is another symptom, and sometimes erysipelas. The cuticle often desquamates—trifling oozing ensues, which, drying on the surface, forms furfuraceous scales, a new source of irritation, often extending to the groins and insides of the thighs. The discharge, at first ichorous, and afterward purulent, is by no means comparable in quantity with that which is met with in some other diseases of those organs—and sometimes even diminishes as the disease advances, in consequence of the diminished quantity of blood in circulation.

If the bladder and rectum have not suffered in the early stage, they seldom escape now—not only from sympathy, but from the disease extending itself to these, in common with the adjacent parts. Such a degree of thickening takes place sometimes in the meatus urinarius as to impede the passage of the urine, and require the catheter—shortly after which the urine will spontaneously escape, not through its urinary passage, but through a communication between the neck of the bladder and vagina.

In a very few cases a communication between the rectum

and vagina takes place, and from that moment no *feces* pass by the anus—the external parts forming the channel through which urine, *feces*, and pus are discharged. The stench now becomes intolerable, and the hips of the patient lying immersed in the excreted matters, the soft parts inflame, and sloughing takes place! It is needless to say that the wear and tear of the constitution, under such circumstances, is great. The patient becomes a skeleton, and dies under a complication of the most terrible phenomena which it is the lot of hapless mortality to endure! The situation of a woman labouring under carcinoma uteri is infinitely more pitiable than that of one with cancer in the breast; for not only are the symptoms more numerous and insufferable, but she has not the good fortune to be cut off, in the progress of the disease, by accidental occurrences. In mammary carcinoma the patient is usually destroyed by hydrothorax—but no such blessing is afforded to the subject of carcinoma uteri; the sufferer being compelled to endure till her frame is exhausted by pain, by vomiting, by want of sleep, by discharge, by an offensive atmosphere, or by gangrene of the integuments!

VI. Treatment. Though carcinomatous ulceration does not obey the laws by which common inflammation is governed, it is nevertheless controlled, in some measure, by those means which subdue common inflammation.

“Whenever a patient, labouring under carcinoma of the uterus, has placed herself under the constant care of a physician or surgeon, it will be necessary that he should watch with attention the changes which take place in her constitution. If he should find the circulation becoming accelerated, the skin more than usually hot, flabbiness of the integuments, softness and shrinking of the muscles in different parts of the body, he may presume that some important change has taken place in the diseased organ. If, together with these symptoms, the lancinating pain has been rendered more acute; if the sympathies between the uterus and the adjacent parts, or between that organ and the stomach, have been more than usually called forth; or if, lastly, the mucous discharge has assumed a puriform character, there can be little doubt that a breach of surface has taken place, and that the complaint has acquired its most frightful and distressing character.” 219.

If the patient possess a vigorous constitution, we are hardly authorized to omit general bleeding; but this will seldom be requisite, as local bleedings can be repeated as often as necessary. The quantity to be abstracted in this way may vary from six to twelve ounces at a time, and the glasses should be applied just above the fissure between the nates. If it be judged

proper to bleed from the lower part of the abdomen, leeches should be scattered above the pubes, from one groin to the other. In the progress of the complaint leeches may be applied to the labia, or even within the vestibulum, "by means of which more relief is sometimes obtained than by their application to the pubis." Local blood-letting should be employed once in three weeks or a month—provided the patient be not weakened by it, or exhausted by pain or discharge. Spontaneous hæmorrhage, to the extent of syncope, not unfrequently arrests for some time the progress of the disease. Even in the latter stages, when the loss of blood might appear unwarrantable, it may still be proper to recommend it; since it is well known that carcinoma uteri, in its ulcerative stage, involves all the neighbouring parts in a state of inflammation and irritation. For instance, when the rectum is attacked, there is tenesmus, great heat in that part, increased distress in voiding the fæces, exquisite tenderness of the gut, if the finger be carried into it. So in like manner, if the disease proceeds to the bladder, shivering usually comes on, succeeded by great pain, and strangury. If the disease makes its way, which is not very common, into the abdomen, symptoms of peritoneal inflammation will, of course, make their appearance. All these circumstances, therefore, call for the loss of blood, even in a late period of the disease.

The management of the discharge is a matter of great importance; for there is reason to believe that the spreading of carcinomatous ulcerations may be greatly retarded by the absorption or removal of the ichorous fluid secreted by them.

"Of all the modes of applying water to sores at the upper part of the vagina, none is so effectual as the use of the hip-bath; in the employment of which, the water is brought into contact with the sore without any risk of injuring the latter. By these means, the object of maintaining cleanliness is not only obtained, but a soothing application is made to an irritable surface; the careful injection of warm water into the vagina, by a syringe, or the agitation of the water by the hand, will render it more likely to remove any portions of coagulating lymph or thickened matter which may adhere to the inside of the vagina. The heat of the water employed should depend upon the feelings of the patient in some measure; but, generally speaking, it may vary from about 86° to 94°. Where the patient is too weak to bear the exertion of being placed in a hip-bath, her hips may be brought over the edge of the bed, and warm water may be carefully injected into the vagina by a female syringe. The quantity of the discharge is frequently increased by the means above-mentioned, but the comfort which the patient will derive from it will abundantly compensate her for any debility which may be produced by the remedy; and excruciating attacks of pain are some-

times rendered very sufferable by a frequent recurrence to it. Strong decoction of carrots, sometimes used for the same purpose, has the happiest effects. Warm water may also be made the vehicle for a variety of sedative applications, which are found by experience to tranquillize all irritable sores ; and, in some, to expedite the healing process. Among the different applications for this purpose, the extractum conii, or extractum hyoscyami, may be mentioned, either of which may be employed in the proportion of about three or four drachms to a pint of water. Solutions of opium, or of extract of poppy, may also be used ; of the former, two drachms ; of the latter, half an ounce, may be dissolved in each pint of water. Starch, or mucilage of quince-seed, form good menstrua for these applications ; their adhesive property enabling them to cling to surfaces to which they are applied. Three or four ounces of either of these fluids, impregnated with sedative substances, may be thrown into the rectum in those cases where relief is not obtained by their application to the vagina ; but when opium is used for this purpose, the practitioner should be very careful to watch over its effects, as it has sometimes happened that unpleasant consequences have arisen from the application of this drug to the rectum, such as vomiting, syncope, cold extremities, and irregularity of the circulation. The action of the absorbents of the rectum is, in all probability, in these cases, increased by the inflammatory process which exists in the vicinity ; besides which, the action of the rectum itself is temporarily taken off, so that the enema will probably be retained during a considerable length of time. Plasters and liniments, into the composition of which opium enters largely, will sometimes be found serviceable in allaying pain, and are useful auxiliaries in a disease in which all the resources of the practitioner may be required to diminish the sufferings of the patient." 229.

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We have now turned over the last page of Mr. Clarke's work, and take our leave of him, perhaps for ever. We implicitly believe the concluding assertion.

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it, either designedly or undesignedly. Thus we see spontaneous eruptions on the skin relieve internal disorders—and irritations in the bowels, inducing diarrhœa, carry off affections of parts situated at a great distance from the alimentary canal. These phenomena must have led careful observers, in the earliest ages, to imitate nature by art. Accordingly we inflame the skin by blisters or other irritants when disordered action or pain is going forward in a deep-seated part—and we irritate, by emetics and purgatives, the internal surface of the body (the stomach and bowels) on the same principle, when either the skin or any other part than the alimentary tube is in a state of morbid irritability.

The ancient observation—"ubi stimulus ibi affluxus"—has been amply illustrated and explained, in our own times, by Dr. Parry, under the terms natural and artificial "*determinations*" to particular parts of the system, as will be seen in the first article of this number. In short, the principle of "derivation," or "counter-irritation," is that which is the most widely employed by all classes of practitioners, of any principle in pathology or therapeutics.

The illustrious discoverer of vaccine security has long directed his attention to the effects of *pustular eruptions*, artificially excited, in many diseases incidental to the human body, and has now laid before the public an ample collection of facts and histories for the illustration of those effects. We shall present our readers with short analyses of many of these cases, as the quarto form of the publication will limit its circulation through the minuter ramifications of the profession.

Case I. A man 60 years of age, originally a seaman, had been occasionally affected with sick headaches, but otherwise in good health. A disappointed scheme threw him into a state of hypochondriasis, which ended in decided insanity, in about three months from the commencement of the hypochondriacal affection. He went through the ordinary routine of treatment, of bleeding, purging, and antimonials; but the disease continued, and the bowels were so obstinate, that it was almost impossible to get any passage through them. A drachm of tartarized antimony, incorporated in an ounce of simple cerate, was now rubbed on the insides of the arms, from the elbows to the wrist, night and morning. Palpule of some magnitude were produced, and the transition from derangement to health was inconceivably rapid. The cure was permanent. The next case related is of a similar description, and with the same result.

Case III. A youth, ætat 17, was found by our author apparently in the last stage of pulmonary consumption, the

symptoms of which are too well known. In addition to the usual phenomena, however, "there was a perceptible enlargement about the centre of the left side of the thorax." To engage his mind, and without any hopes of ultimate recovery, the antimonial ointment was rubbed on the protuberant part until pustules were produced, which was effected in a few days. In a week there was some amendment in regard to the cough and other distressing symptoms. The application was continued with the view of keeping the pustules in full activity. At the expiration of a fortnight the general bad symptoms had considerably abated, and the patient's looks were much improved. From this time the convalescence was so rapid, that in six weeks more, no vestige of disease remained, and the youth began to renew his ordinary avocation, that of a stone-cutter. Dr. Jenner very properly wishes that it may not be inferred from this case that he supposes genuine confirmed phthisis is to be cured by artificial eruptions.

The fourth case was a woman, 54 years of age, subject to spasmodic asthma. She used the ointment on the nape of the neck, after which the complaint was more slight, and the intervals longer.

Case V. A seaman, 47 years of age, was suddenly seized with inflammation of the right eye, but not so violent as to prevent him pursuing his avocations for nearly three weeks, when a chill came on daily between three and four o'clock.

"About half an hour after each attack, a pain seized the right side of the head, principally about the orbit of the eye, extending in the course of the temporal muscle. It continued to return every afternoon at a certain hour, and at length became so violent as to deprive him of sight and intellect. In one of the paroxysms he grew enraged with his wife, because he supposed that she had not lit him a candle, although one was burning before him. These periodical attacks became marked in the end with raving madness. In a paroxysm, with extreme severity of pain, he was at the point of destroying one of his children. He was bled from the arm, leeches, and took purgatives up to drastics, but they took no effect upon the malady. Seeing the impression which tartar emetic had made on affections connected with a disordered state of the brain and nerves, I did not hesitate to direct the application of the ointment, and it was applied to the left arm. Pimples followed in twenty-four hours, and as soon as they became acuminate, and contained a little limpid fluid, the patient found ease; the pain continued to abate, and at the end of three days it was quite gone. He continues well. This man, like many others who ply as mariners on our river, (the Severn.) was a hard drinker." P. 9.

Case VI. The sixth case was a boy, 12 years of age, who had been ill six months, with what is called chronic hepatitis. His liver felt hard, enlarged and very sensible to the touch. The cachectic appearance and general emaciation were such as indicated the probability of a fatal termination. At this period the ointment was applied, with the usual cutaneous effect, "after which he recovered with astonishing rapidity, and no vestige of the induration or enlargement within the abdomen remains." Mild aperients were used during his indisposition.

Cases VII. VIII. IX. The seventh and eighth cases are equivocal, or unsatisfactory. The ninth case was that of a young woman with mania, the patient of Mr. Fewster of Thornbury. Her ravings were violent. Leeches were applied about the head, and the ointment upon the leech-bites. "As soon as vesicles appeared, she was well. Having neglected to continue the ointment, she experienced a relapse, and became decidedly maniacal. The ointment was reapplied, and she soon recovered.

Case X. (A patient of Mr. Fry of Dursley,) Mrs. B. ætat 23, was seized with puerperal mania the second day after parturition, and became totally unmanageable, refusing food and medicines. The antimonial ointment was rubbed along the inner surface of the forearm, from the joint to the wrist; but a fortnight elapsed before a vesiculated eruption was brought out. "As soon as the eruptions appeared, melioration of her symptoms was evident." She was kept under the influence of the medicine nearly three weeks, during which time she progressively improved. During the external applications she took occasional purgatives, and a solution of tartarized antimony internally in nauseating doses. Considering that this was *puerperal* mania, and that the other means were pretty efficient, we can hardly agree with our worthy author, that "her restoration may be chiefly imputed to the ointment."

Case XI. The eleventh case was insanity unconnected with pregnancy. The disease was removed by the ointment; but the patient relapsed, and when the work went to press, her friends were endeavouring to get her into Saint Luke's.

Case XVI. We shall pass on to the 16th case, the intervening ones not being particularly interesting.

Mr. F. S. ætat. 37, a hard drinker, caught cold in an open carriage, which was succeeded by hæmoptoe. His respira-

tion at the time of report, was very quick and difficult, with cough, and expectoration of viscid phlegm. Has been bled repeatedly during his illness, now of thirteen weeks duration, and with some relief. Last of all he used the ointment, which excited a very irritative crop of pustules on the chest. When they were fully formed, and had discharged, the patient found great relief of respiration, but not so decidedly of the cough. In another month the patient was farther improved, but the account breaks off, when he was very far from well.

Case XVII. This was a man, 40 years of age, apparently phthisical for 25 years past, and subject to attacks of hæmoptoe.

“After being severely indisposed with affections of the chest, viz. cough, and impeded respiration; he was seized, last summer, with a dangerous recurrence of the hæmorrhage. It was concluded that he had pulmonary consumption in the last stage, and the case afforded every indication of terminating fatally, but the hæmoptoe, which became more and more violent, was at last arrested by superacetate of lead, and the tart. emet. ointment was applied to the chest. As soon as the eruptions vesiculated, he got better; when they died away, he began again to feel uncomfortable about the chest, complaining that he felt “plugged up in breathing.” He finds immediate ease by a renewal of the eruptions, and has, in consequence, continued under their influence for nearly twelve months past. His skin is so irritable, that pimples almost immediately follow the application, though in some individuals three days will elapse before they will be excited. The ointment gives him most relief when applied to the opposite side of the chest to that most affected.” 23.

Case XVIII. We marvel much that our able and intelligent author did not place the following cure to its real cause—the removal of obstruction from the hepatic duct, rather than the application of antimonial ointment. We shall give the case entire that our readers may judge for themselves.

“John Gay, 39 years of age,—Was taken ill about four months ago, with feelings of languor and nervous debility, accompanied with dyspepsia, bilious and acid eructations: he had also pain in the right hypochondrium, dry sore throat, and general feverishness. With these symptoms he had pyrosis. His complaint continued to grow worse, especially a dull pain which had been going forwards in the region of the liver, till he was seized with symptoms of complete obstruction of the common duct of the gall-bladder. His skin became tinted with a deep blackish yellow colour. The food and medicines which he took, for some time after the symptoms of obstruction, regurgitated in an unaltered state, from the stomach.

He found great difficulty in procuring medicines, from different medical men, that would act on his bowels. In this emergency, scanty evacuations of slime were procured by the administration of clysters; but he passed no solid stercoraceous stools; pills of soap and rhubarb, combined with an aromatic, and also the ointment, were now prescribed for him. Pimples appeared within twenty-four hours. These suppurated, and discharged pus with unusual freedom, and disposition to continue to discharge. About the time at which the pustules appeared, a sudden burst of evacuations took place, consisting first of bilious coloured fluid, next of slime of a green hue, and an abundance of shreds of a skinny appearance. In his first stools, at this time, my patient observed a mass, which he conceived to be food and medicines which he had taken previously, and had remained unaltered in the alimentary canal. The pain in his right shoulder and right hypochondrium abated rapidly, and his stools came away more solid, but still enveloped in slime. He is now convalescent, but tender under the margins of the right ribs, and possessing a mitigated degree of unhealthy action about the liver. As his health *improved*, the eruptions evinced a *disposition to dry up*, but they have been continued. He had, four years ago, a constitutional sore, which has occasionally healed and re-appeared; its final suppression may have had some connexion with his present complaint. His recovery went on and was perfect in far less time than I could reasonably expect, considering the extreme state of debility to which he was brought by his long and severe sufferings. Within six weeks he resumed his laborious occupation, which was that of a sawyer." 24.

We were lately in attendance on a remarkable case of jaundice from simple obstruction of the ducts, some particulars of which may not be uninteresting. A young medical gentleman in the city had been attending a bad labour—at first protracted, then with retention of the placenta, and afterward, we believe uterine hæmorrhage. The fatigue or anxiety—or both combined, produced jaundice in about 48 hours after the accouchement. Dr. B. became quite yellow, but continued to go about his professional avocations, complaining of lassitude and all the usual symptoms of jaundice, with very yellow urine and white stools. The jaundice, continuing, and the tint deepening for ten or twelve days, with loss of strength and appetite, the patient and friends got alarmed, and we were requested to see the gentleman, with Dr. Farre, and occasionally Dr. Babington. There was at this time no pain on the side or at the pit of the stomach; but the skin was intensely yellow, the stomach irritable, the stools white, the mind desponding, and the physical powers all depressed. The usual remedies were tried, as the warm-bath—mercurials, aperients, local bleeding from the region of the liver, &c. &c. but all without the slightest advantage. In short, the com-

plaint went on nearly seven weeks, the patient getting weaker and more emaciated every day, with great gastric irritability. Some of the attendant physicians considered the case as very dangerous, the obstruction being looked upon as of some fixed or organic nature, which would terminate by effusion in some of the cavities. About the middle of the seventh week, however, when great despondency prevailed on all sides, Dr. B. complained of pain, for the first time, at the pit of the stomach, which gradually but rapidly increased, till it ended in the tortures of gall-stones. In about 24 or 30 hours from the commencement of the pain, vomiting, and spasms, a burst of bilious fæces came away, with cessation of pain, and, of course, an end of the jaundice. This took place in the night, and the servant threw away the first two or three motions, so that the biliary concretions were not detected, but no doubt could exist as to their having been passed by stool.

The above case is highly important in many respects. In the first place it shows how quickly mental anxiety will produce jaundice by obstructing the biliary ducts, probably from spasms of their mouths, whereby the bile stagnates in the passages, and becomes inspissated there. In the second place it teaches that complete obstruction to the natural course of the bile—in other words, simple jaundice may continue many weeks without being fatal. We have seen but one other case where jaundice from gall-stones continued so long, and ultimately did well. In the case here alluded to, which was also that of a medical man, the obstruction remained thirteen weeks, and then terminated by painful expulsion of gall-stones. In general, however, simple jaundice lasting longer than two or three weeks, becomes a dangerous disease, and requiring a very guarded prognosis. In old people it is still more dangerous than in young. In organic diseases of the liver, as where a tubercle presses on and obstructs the ductus communis, jaundice will last many months without proving fatal. We are at this time, (April 1822) attending with Mr. Brien, an intelligent surgeon of Spencer-Street, a man who has been intensely jaundiced for more than ten months. He has organic disease of the liver, probably tubercles, and is greatly emaciated, but not yet dropsical.

To return to the case of our young medical friend. It appears either that the obstructing cause lay dormant in the duct for so many weeks, like a foetus in utero, until its size or other circumstances induced expulsive efforts in the duct; or else the cause was gradually and slowly advancing to the extremity of the tube, and did not cause pain till it came to its mouth, which is known to be much more sensible than

any other portion of the canal. In either case, we apprehend that we have very little power over the mechanical obstruction. In the case under consideration, every mean was tried in vain—including impregnation of the system with mercury—emetics—electricity—warm baths—soap and alkalies—purgatives—frictions of mercurial ointment, &c. &c. &c. After we had ceased to administer remedies, the expulsive nusus in the duct came on spontaneously, and the concretion was dislodged. But we may here mention that we have seen some instances of jaundice from mental affections, where the cause was very quickly removed, (at a very early period of the complaint,) by administering five or six grains of calomel and two grains of opium over-night, and next morning giving the patient a brisk emetic. We pursued this plan on the supposition that spasmodic constriction of the biliary duct is the first link in the production of biliary concretions, and consequently jaundice; and that the opium and calomel tended to relax this constriction and increase the *vis a tergo*, or secretion of bile. The mechanical action of vomiting was employed for very obvious reasons. We have to apologize for this digression; but hope it is not entirely devoid of interest.

We have now presented our readers with an analysis of those cases which Dr. Jenner has laid before the profession. The trials, as he acknowledges, which have been made of exciting vesiculo-pustular eruptions, are as yet limited, "but he trusts the general favourable results of the experiments made, will apologize for his hazarding a few physiological hints for the consideration of those who may think a wider basis to work upon desirable." These hints are chiefly speculative, and founded on his "favourite pedestal analogy."

It appears that about 40 years ago two papers were published on the subject of the external application of tartrate of antimony—the one by Mr. Gaitskill, an able and experienced surgeon at Rotherhithe;—the other by Dr. Bradley. The latter gentleman relates some interesting observations respecting the use of the remedy in rheumatic affections. In every instance it appeared to Dr. Bradley to be a remedy of great efficacy; but the disagreeable symptoms produced by it caused many to desert its use. In recent cases, he observes, the first or second application often removed the complaint; but where the cases were of long standing, it was necessary to persevere in the frictions for three or four weeks. In several cases the eruption appeared on distant parts of the body.

Dr. Robinson has lately written (in the Medical Repository. January, 1821.) on the good effects of the antimonial

ointment rubbed on the region of the stomach in whooping-cough. By tartrate of antimony, Dr. Jenner remarks, we can not only create vesicles, but at the same time produce diseased action in the skin itself, *by deeply deranging its structure beneath the surface*—one cause, perhaps, why the sympathetic affection excited by the lytta, and those changes induced by antimony, are very different. Our author observes that, in small-pox, a different degree of secondary fever will follow, when the skin is simply affected on the surface, and when it is partially destroyed beneath.

“Whoever has observed the deranged state of health where vesiculated eruptions have been called into action by an effort of Nature, must have seen how often they arrest the progress of the original disorder, and may we not from thence infer what appears to me to be a pretty general law of Nature, that she often gets rid of diseased action affecting vital organs, by exciting eruptions in other parts not vital?” 31.

Among the illustrations of this doctrine brought forward by Dr. Jenner, he mentions a remark made to him by his able and excellent friend, John Fleming, Esq. now a member of the British Senate, and formerly at the head of the medical department at Calcutta—namely, that when attacked with intermittents, and when he took the bark frequently, he seldom could get well until herpetic eruptions appeared on his lips.

That illustrious observer, Dr. Ferriar, in his medical histories and reflections, has occasionally alluded, in the most pointed terms, to the subject now before us.* “Cutaneous eruptions (he observes) often extinguish dangerous diseases.” Madness and melancholy, epilepsy, delirium protracted after fever, dyspepsia, and various pulmonary affections, are all observed to be mitigated on the appearance of cutaneous disorders—especially on the return of those that, after becoming habitual, had been suddenly suppressed.

Huxham has also related some general facts that bear on this subject—and it is particularly worthy of notice that he describes the sympathy between the skin and lungs, which elucidates the favourable effect of artificial eruptions in some pulmonary disorders.

Here Dr. Jenner regrets, and with reason, that Dr. Parry’s

* It is a doctrine of very old standing indeed; but in the humoral pathology, physicians considered what we now look upon as metastases of diseased action, to be translations of *matter*, and eruptions, abscesses, &c. were believed to be so many drains for carrying the peccant humour out of the constitution.—*Rev.*

"Elements of Pathology" is not sufficiently studied and appreciated by the profession. We hope we shall prove instrumental, in the present number of our journal, in obviating this unwarrantable apathy of our brethren to such a valuable work. At all events, we have sent forth an abstract of Dr. Parry's volume, that will be read and reflected on, where the original could never hope to travel—perhaps where it *has* travelled hitherto in vain.

In order to display, in a still stronger point of view, the analogy between the phenomena of artificial and spontaneous eruptions, Dr. Jenner draws an interesting sketch of the rise, progress, and termination of what is called an exanthematous fever—the small-pox, for example.

"Morbid animal matter, generated by this disease, is applied to the body either by what is termed the natural or artificial mode. After a given space of time, in either case, diseased action is manifested by that constitutional derangement which is designated fever. This goes on for a limited period, when eruptions appear on the skin, which soon show on their apices vesiculated specks. Here the disease, as far as it depended on the *primary action* of the infectious matter which called it into existence, terminates. But now a new train of symptoms comes on, consequent to the diseased action excited on the skin by the *pustules*, the influence of which is felt in proportion to their numbers, their malignancy, the disposition of the constitution, and the extent to which they penetrate the skin. The fever, in the first and second instances, has two *distinct* origins. In the *first* instance, it arises from the influence of the morbid matter inhaled, or intentionally applied; in the *second*, from diseased action going forward on the skin, and, in many instances, also on the mucous membranes of the fauces, trachea, and ramifications of the bronchi. The rapidity with which, in some instances, the secondary diseased action follows the primary, often obscures the distinction. Of this the ordinary phenomena of confluent small-pox and scarlatina exhibit familiar instances. In the first of these the skin is often so quickly and universally assailed, that there is, in most instances, no interval of cessation. Nature is in a hurry to call out her guards." 40.

Here our esteemed author introduces some practical remarks on the benefits which may be derived from sedative applications, where the pustules are formed so thick upon the cutis as to augment, in a high degree, the secondary fever. An experiment was made by Mr. Fry, in the case of a young woman, who had a full burthen of distinct small-pox, and whose countenance was loaded with pustules.

"In this state one cheek was sopped with liq. lythargy ri somewhat more diluted than intended, while the other was suffered to take its course for the sake of comparison. The consequence was,

that although, from excessive occupation, this process was not repeated by Mr. F. the effect was nevertheless very manifest, for the pustules were so much checked in their progress to maturation, that they could be scarcely said to have matured at all." 40.

As Dr. Jenner rests this proposition of checking the exuberance of eruptions by sedative applications, on a single case, and that not under his own eye, we are justified in considering it as a mere speculation; and we would hazard another speculation; namely, that the practice would prove a dangerous one. We grant, indeed, that *cool air* is always advantageous in eruptive diseases, as moderating the *eruptive fever*, and refreshing the patient; but we would be very loth to apply sedative and repellent applications to the eruptions themselves, for a similar purpose. We are sure Dr. Jenner will excuse the freedom of this remark, the propriety of which, we think, is not a little strengthened by the following observation of Dr. Jenner himself.

"Even in small-pox, though the disease itself cannot possibly disappear wholly, the eruptions, when in a vivid state of maturation may so lose their prominent appearance, as on a sudden to become flattened and excite distress in the constitution, which is often followed by fatal consequences." 44.

Dr. Jenner remarks that, when eruptions appear early, and without the proper vesicular character, the prognosis is unfavourable. But we must pass over several pages occupied with hints, suggestions, and speculations respecting several diseases, as our limits are already exceeded.

The formula of antimonial ointment used by Dr. Jenner is the following. Ant. tart. 3ij. ungt. cetacei zix. sacchari albi 3j. hydrarg. sulphur. rub. v. gr. m. ft. unguentum. The tartrate of antimony should be finely levigated. The sugar preserves the ointment from rancidity. The ointment sometimes brings out crops of pustules in one day—sometimes requires several. "In the case of a lady, where two parts of tartar emetic and one of simple cerate were used, eruptions appeared in a few hours. A communication from Mr. J. Fosbroke is inserted, in which several interesting particulars are stated relative to the action of the antimonial ointment in some cases of hysteria. A case is also introduced from the Rev. G. C. Jenner, illustrating the beneficial effects of the said ointment. We shall give it in the author's own words, as the case is short.

"William Holloway, ætat. 26.—Very tall, and of rather a spare habit, about the end of December, or beginning of January last, was attacked with violent pain in the left side, and considerable

swelling about the region of the liver, with most of the usual symptoms that attend hepatitis, together with others indicative of pulmonary affection. He was bled, blistered, and took various medicines, under the direction of several medical gentlemen in the neighbourhood. These remedies afforded him a temporary relief; but he soon grew worse, and his malady continued to increase for six weeks, when I mentioned his case to you. By your advice, I furnished him with some of the ointment of tartarized antimony, and directed him to rub it on the chest. In twenty-four hours, eruptions appeared. The enlargement about the liver soon began to subside, the pain abated, and at the expiration of a month he was able to follow his usual occupation of a mason and bricklayer.

"In September last, during the unsettled weather, he went to assist a neighbour in securing his corn; when, after using great bodily exertion, and drinking freely of cider while he was very warm, he felt himself much indisposed, and in two days afterward was seized with chills. The pain in the side returned, attended with pain on the top of the shoulder and in the chest, shortness of breath, cough, quick pulse, (I never found it under 120,) and great debility. He now used the ointment, unassisted by any internal remedy. He received it from me with the most enthusiastic rapture, and used it more profusely than I intended, not only on the chest, but on the shoulder, and wherever he felt pain. A large crop of pustules was the result, which matured, and continued to discharge plentifully for nine days, when he was able to resume his work, and is now free from all complaint." 63.

We must now take leave of our worthy author, with the expression of our high respect for his talent, zeal, and usefulness; and with ardent wishes that the remedial process pointed out in these pages may answer the expectations of himself, and prove equally advantageous in the hands of others.

VII.

A Manual of the Climate and Diseases of Tropical Countries; in which a Practical View of the Statistical Pathology, and of the History and Treatment of the Diseases of those Countries, is attempted to be given; calculated chiefly as a Guide to the Young Medical Practitioner on his first resorting to those Countries. By COLIN CHISHOLM, M. D. F. R. S. Honorary Member de Physique et d'Histoire Naturelle de Geneve; Member of the Helvetic Society for the Promotion of Science of Switzerland; of the Philosophical, Medical,

and Natural Societies of New-York and Philadelphia ; and late Inspector-General of Ordnance Hospitals in the West-Indies, &c. &c. &c. One closely printed Volume, octavo, pp. 336. London, 1822.

(First Analytical Article.)

WITH a rooted attachment to his native soil, MAN has yet an insatiable avidity for exploring distant regions. Such is the strange compound of his nature ! Placed here without armour or defence, the most helpless of animals, his intellect has enabled him to ascend to the highest regions of the air, to sail on the billows of the ocean, to descend into the bowels of the earth. With comparatively an infant's strength, he harpoons the whale, tames the elephant, imprisons the tiger. The feeble hand of man imitates the great operations of nature—he blows up rocks, levels mountains, turns the bottom of the sea into dry land, and leads the waving sail of commerce through the very heart of the country, without the aid of bay, lake, or river !

But it must be confessed that, with man's physical weakness, there is blended a considerable pliancy of constitution, which enables him, by the aid of his reason, to bend to the circumstances around him, and thereby render them less injurious to mind and body. He cannot become a cosmopolite by the mere plastic nature of his frame, without the assistance of his genius. "*L'Homme doit à la flexibilité de sa constitution l'avantage d'être cosmopolite, ou de pouvoir vivre dans toutes les régions du globe ; mais il ne jouit aussi de cette prérogative sur tous les animaux, que parce qu'il sait se défendre des influences les plus rigoureuses des climats, par des vêtemens, des habitations, par le feu qui le rechauffe et cuit ses alimens, par les soins, la culture, les défrichemens qui assainissent des terrains inhabitable.*"*

It will not be disputed that the medical officers of the army and navy have contributed much to our knowledge of medical topography, and of the influence of climate on the health and life of our species. Dr. Chisholm, in particular, has long been known as an able, zealous, and intelligent inquirer and observer of all things connected with our Western Colonies ; and in committing to the press this result of his experience and reflections (now that he has retired at an advanced age from the fatigues of practice,) he has laid the rising generation of the profession under a debt of gratitude to his memory, which will long continue to be acknowledged and discharged,

* VIREY.

when, alas ! the corporeal ear will be equally deaf to praise or censure !

The work before us is dedicated by permission to His Royal Highness the Duke of York, and prefaced by a letter to his long-tryed friend, Sir James Macgrigor, at whose suggestion this Manual has been published. Dr. Chisholm confines himself to the *Western* hemisphere, partly because he never visited the *East*, but principally because he considers the *latter* subject as, in a manner, exhausted by a modern publication well known to the profession. In this work our author informs us that nothing has been advanced, the truth of which has not been known to himself, or to others on whom he could rely. He has, however, strengthened his own propositions occasionally by quotations from, or references to, many of our best modern authors.

Did our Journal circulate only within the limits of the British Isles, the subject matter of Dr. Chisholm's work would still furnish an extensive article of great interest to the home practitioners. But when it is considered that there is not an island in the great West Indian Archipelago which this Review does not visit, it becomes doubly necessary that we should dedicate a space to the volume before us commensurate with its value and importance to all classes of our subscribers.

Dr. Chisholm's work is divided into two great divisions or parts, the *first* embracing the statistical pathology, and the *second* the diseases of tropical countries, more especially the West-Indies. These divisions are branched out into chapters and sections on the particular subjects, of which there is a great variety—more indeed than we shall be able to notice even in a cursory manner here.

The West-India Islands, Dr. C. observes, may be classed into the high and low, in respect to surface ; and into the argillaceous and coralline in respect to structure. The conical summits of the mountains denote, of course, a volcanic origin, and exercise a powerful influence on the salubrity of the atmosphere. Some of these islands, as St. Lucia, Grandeterre of Guadaloupe, portions of Martinique, Dominica, Tobago, Trinidad, and Grenada, are more remarkable than others for marshes, and consequently for insalubrity.

“ But the great agent of insalubrity in the higher islands, is the irregularity of their temperature. The windings of the innumerable hills, produce a change of temperature, as they recede into hollows, or project into prominences, giving a quick and most unpleasant alternation, of almost unsupportable heat, and consequent profuse perspiration, and comparative cold with dry and corrugated skin. Another cause of insalubrity in the mountainous islands, is the humid

state of their atmosphere, occasioned by the attraction of their peaks or conical summits and cliffs, and extensive forests." P. 2.

Antigua being altogether argillaceous, is distinguished by a peculiarly cold atmosphere, comparatively speaking, producing on the human constitution all the effects of marsh miasma, although no swamps exist in the neighbourhood of St. John's where this singular cold is chiefly felt after rain. The view of the country of Lamantin from the height of Morne Garnier, in the Island of Martinico, before the sun has penetrated the fog, excites astonishment how any human being can exist there.

"Nothing is perceived but the summits of the hills, every other object lying hid under a vast expanse of dense white fleecy damp vapour:—if a calm prevails, the fleecy atmosphere is immoveable; but if the gentlest breeze springs up, an undulation takes place, and presently huge volumes accumulate, and slowly roll along, carrying their pestiferous miasms towards Fort Royal, or mingling them in the waters of the Bay. The consequence of this is, the temperature of Fort Royal, and the immediately adjacent country, is subject to great variation; and the chilliness or aguish cold which prevails here during the night, excites the most unpleasant sensations imaginable." P. 3.

The temperature of the West India Islands is regulated, of course, by the degree of elevation. The medium heat on the coast is 84° ; while at the accessible parts of the higher mountains, it is about 60° —a range of 24 degrees. This is an important fact when we come to consider the preparation of the unassimilated European to the Torrid Zone.

"I shall here further observe, that this gradation of temperature, according to the altitude of surface, is principally efficient in rendering the West-India islands very healthy, when no foreign cause of disease exists, and when the inhabitants are exposed to that only which is endemic. That they would prove so to every description of their inhabitants, European and native, British and French, were they all equally careful to avoid those excesses, and those imprudences in diet and personal exposure, which, in all climates, are dangerous, and too often fatal, may be demonstrated in many instances. The uninterrupted health and longevity of the French and Creole inhabitants of both sexes, are the result of an active, prudent, and temperate life. Eighty, ninety, a hundred years, is by no means an uncommon age among these people—nor does this appear to be owing to their residence being higher and cooler, than that of the British, although that, as a general cause of health, is, as I have already remarked, particularly remarkable; for many European French, and some Creoles, possessing fine plantations, on the coast, enjoy the same exemption from disease." 3.

The North-East, or *windward* shores of the West India islands are more level or declivous than the leeward or S. W. sides—they are consequently more marshy and unhealthy. Exposed to the northerly winds of spring, their inhabitants are annually at that season afflicted with pulmonic and hepatic inflammations. The dry season, in the West Indies, is from the beginning of December till the end of April; and is usually pleasant and healthy. The approach of the rainy season, in the two last months of summer, is awful, and always indicated by thick fogs hanging about the summits of the higher mountains, followed by dark, watery clouds, rolling from the North-East in terrific volumes, and darting bright electric corruscations from their edges. Tremendous torrents of water are suddenly precipitated from these clouds, and, rolling down the bottom of ravines and beds of rivers, carry every thing before them, discolouring the sea for several miles in every direction. The wet season, in the West as in the East, is checkered by many successive days of insupportable closeness and sultriness. The months of March and September are particularly stormy in all the islands, and the tract from 11° South to 18° North, is too often visited by those tremendous hurricanes which carry terror and devastation in their train by land and sea. The medium height of the thermometer at one P. M. in the shade is 83° varying from 74 to 92.

The second chapter of Part I. is on the tendency of tropical climates to the production of disease. Dr. Chisholm remarks that, if we abstract the miasmata of marshes and the abrupt vicissitudes of temperature, the *first* giving rise to endemic fevers, and the *second* to local inflammations, the mortality is very little more, in ordinary years, than in England. This position presumes, and indeed Dr. Chisholm directly expresses it, that solar heat, except under particular circumstances, “has never been a cause of disease.” But in the subsequent page our ingenious author acknowledges that the same solar heat powerfully *predisposes* the European constitution to be acted on by other causes of disease, and we would ask in what does this *predisposition* consist? Is it not evidently a deterioration of the constitution—in other words, a morbid condition, or, in fact, a *disease* of the animal frame? * Every

* Our author states that the action of solar heat *alone* does directly produce what has been termed *coup de soleil*; (carus ab insolatione) and if so, we ask if it be not probable that a long-continued application of the same agent, though in a degree too small to produce *coup de soleil*, may yet produce other changes of a morbid nature in the system, corresponding with this milder degree of the solar agency?

man, indeed, who has accurately remarked his own feelings, or consulted the feelings of others, under high atmospheric temperature between the tropics or any where else, must be convinced that such feelings are incompatible with long and regular health. We ask all those who have sojourned between the tropics whether there is not something of a wearing, wasting, and exhausting nature in high atmospheric temperature, which not only predisposes to the action of other morbid causes, but actually conducts to premature old age and decay, should the individual be fortunate enough to escape the more obvious and unequivocal diseases of tropical climates induced by other agents than high temperature. With this qualification we agree with our author that, speaking generally, atmospheric heat only lays the *predisposition*, while terrestrial exhalations and vicissitudes of temperature call into *action* the principal diseases of tropical climates.

There is another drawback on Dr. Chisholm's comparative salubrity of the West Indies—namely, his omission of those “malignant pestilential fevers,” which, from time to time, have ravaged the said islands, and which he attributes to imported contagion, but which many others attribute to the climate itself. If *these* be included in the effects of climate, then the comparative salubrity of inter-tropical and northern countries, drawn by Dr. Chisholm, will not hold good. We will not, however, dip into this long-litigated question, but proceed to the *third* chapter, which takes up the subject of *Hygiene*.

Dr. Chisholm's observations correspond with those of the best observers, that those men are most subject to the higher grades of the remittent as well as the pestilential fevers of the Western hemisphere, who are unhabituited to the Torrid Zone, and who possess plethoric habits, sanguineous temperaments, and rigid fibres. The grand principle of our author's Hygiene will be gathered from the following short extract.

“I have said that solar heat, although seldom a direct, should always be deemed an indirect morbid cause, inasmuch as it powerfully predisposes the system of the native of a cold or temperate climate to be acted on by the direct endemic or imported causes of disease, he may be exposed to on his arrival in the tropical. It follows, therefore, that the lessening the action of heat on the system of such a person constitutes the principle on which assimilation depends; and in its consequence gives a ready solution to all the phenomena of seasoning.” 10.

This is the very principle laid down by Dr. James Johnson also, in his work on tropical climates. “The two fundamental rules of tropical hygiene, says Dr. J. are *tempe-*
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rance and *coolness*—the latter indeed includes the former, and simple as it may appear, it is the grand principle of inter-tropical hygiene. From *heat* spring all those effects which originally *predispose* to the operation of other morbid causes. And how can we obviate these effects of *heat*, but by calling in the aid of its antagonist *cold*? It is always satisfactory to see two authors, both independent and original in their observations, agree on material points, whether of pathology, therapeutics, or hygiene.

Our author very properly remarks, that tranquillity of mind and body, for some time after arriving in a tropical climate, is a necessary condition to give effect to a plan of preparation founded on the above principle—hence the difficulty of effecting this object among troops employed immediately after their arrival on actual service:—"during which, the excessive heat and fatigue in the day, and the cold and humid evaporation in the night, to which they are alternately exposed, together with the large quantity of animal food which enters into their diet, give a manifold increased aptitude to suffer by endemic or imported causes of disease." Our author thinks, and with great probability, that could the exigencies of the state permit the indulgence of a few months' ease and tranquillity, with a cooling, refreshing diet, to troops on their arrival from Europe, in some island, as for instance, Barbadoes, not particularly subject to irregular temperature, a great deal might be done to prevent the danger in assimilating their systems to the climate. We copy the following prophylactic measure from our able author. The plan has been ridiculed by some writers, whose lucubrations, however, are fast sinking into oblivion, if, indeed, they are now remembered at all.

"On reaching the northern tropic of N. lat. 23°, every stranger to the torrid zone should be bled to an extent proportioned to his age and strength; and a pill of five grains of calomel, given at night, and a saline purgative the following morning. The bleeding should be repeated, if necessary, once before landing; but the calomel and salts should be frequently resorted to; and this will be more necessary should there be a disposition to constipation. I have already observed that on approaching the tropics, a considerable tendency to congestion is perceived:—this greatly increases on a further advance, more especially hepatic congestion, which, in fact, is the most serious consequence to be apprehended on entering the tropics.—Nothing more effectually obviates this, than moderate bleeding, and mercurial and saline purgatives. To assist this course, the diet should be made as cooling as possible. Perspiration being the great means employed by nature to carry off the superfluous heat, every thing which tends to restrain it should be avoided; dilution is, therefore, in every respect, highly necessary; and it is evident,

that, with this view, water is the fluid best calculated, for whilst it promotes perspiration, it necessarily prevents determinations and congestions." 12.

Cold bathing is recommended, and properly, we think, by Dr. C. as an essential item of prophylaxis. After landing, it is desirable, if possible, to place the men out of the reach of marsh effluvia, and so high as to secure a temperature of from 70° to 80°. Exercise should there be frequent and regular, with *gradual* exposure to the sun. We recommend this part of the work to commanding officers of regiments or corps, as containing most sound, rational, and practical doctrines.

The medical management after landing, must be analogous to that during the voyage. Plethora must be diminished by occasional bleeding and purging—the cutaneous surface kept clean and permeable by bathing, and by the use of flannel and oily inunctions.

The fourth chapter is on the particular seasons of the West Indies. From accurate returns and eighteen years' personal observations, it appears that the months of July, August, and September, are the most sickly—Oct. Nov. and Dec. next in degree; and Jan. Feb. and March least sickly. In the next page, by some error of the press, it is recommended to send troops *before* the month of October, and a little farther on, the best time of leaving England is stated to be early in October. It is probable that a *not* is omitted in one of these passages, which, of course, alters the sense of the text entirely.

The endemic diseases of the West Indies are either bilious or inflammatory as the seasons are hot and wet, or cool and dry. Thus in the summer and autumn we have remittents, dysenteries, cholera, &c. and in marshy districts, at this season, obstinate intermittents almost always depending on visceral obstruction or inflammation, together with hepatic dysenteries of a very dangerous character. In the winter and spring the complaints are, of course, of an inflammatory character.

Miasmal diseases are by far the most formidable within the Torrid Zone. The yellow and sallow complexions of those who may be considered as "*ascripti glebæ*," manifest the nature of the air they breathe; and the short lives, of the men more especially, constitute a still more forcible testimony. Unfortunately those bays and inlets which afford most protection from the stormy elements to our shipping, are those which are most productive of dreadful miasmal diseases. The carenage or harbour of Fort Royal, in Martinique, exhibits a melancholy illustration of this truth.

A stranger, Dr. C. justly observes, who believes that the diseases of tropical climates must necessarily spring entirely from heat, will be greatly disappointed. In fact, the best writers on those climates represent a great proportion of the diseases of Europeans as proceeding from the application of cold, after the human frame has been enervated by heat.

"3. The third subdivision, viz. the diseases from cold and moisture within the tropics, also demand a no less assiduous attention. Exposure to this state of the atmosphere has always been found injurious to the human constitution in hot climates. In these climates, this combination has never failed to produce the effects of marsh influence, united with the inflammatory diathesis proceeding from cold alone. In fact, its product is typhoid inflammation, which is always topical, and often attended by symptomatic fever. The form the inflammation assumes is either pleurisy, hepatitis, or rheumatism, and the type of fever is remittent generally, often intermittent. The intestinal canal is not unfrequently the seat of this inflammation, and almost always in the form of dysentery, so often experienced by armies obliged to lie on wet ground, and after exposure to rain and great fatigue." 22.

Imprudence and intemperance are prolific sources of disease within as well as without the tropics. Exposure to a very high temperature during the day, and chilling dews in the night—especially if combined with intemperance in drink, is too often followed by dangerous yellow fever, or no less fatal hepatitis, terminating, with rapidity, in gangrene of the liver. Dysentery and enteritis are also very frequently the consequence, and often end quickly in mortification of the bowels. For many excellent prophylactic remarks at the conclusion of this chapter, we must refer to the work itself. The fifth chapter also we must pass over, (embracing the prevention of disease depending on public policy,) particularly as it takes up the subject of *contagion*, on which we shall not at all enter in this article—for unfortunately the more the subject has been discussed, the greater has been the discrepancy of opinion entertained, and the more tenacious have the opposite parties become of the doctrines originally embraced. We do not therefore deem it advisable to waste our time in hopeless disputations.

The second part of Dr. Chisholm's work is on the diseases of the West Indies, and especially those of an endemic nature. Those, he observes, might be divided into four classes as before—namely, as resulting from marsh exhalation, atmospheric vicissitudes, cold and moisture united, and lastly, intemperance, &c. but, in truth, the causes of disease are so often mingled within the tropics, that the subdivision in question is not always so distinct as to render it necessary to treat of the endemic diseases accordingly.

1. *Yellow Remittent Fever.* This naturally occupies the first rank. The etiology, symptomatology, pathology, and treatment, are ably portrayed by our most intelligent author, and will form an admirable manual to our younger brethren on first entering the Western Tropics. It is hardly necessary to say, that the grand agent in the production of this fever, in all parts of the world, is that invisible, inexplicable something designated "vegeto-animal, or marsh effluvium," which issues from the soil of tropical climates, and even temperate climates, at certain seasons when atmospheric temperature rises towards the tropical range.

As to the symptomatology of these fevers, it is unfortunately too well known to the British profession to need any recapitulation here. The pathology has appeared to our author very uniform, from the inspection of a great number of bodies.

"The principal organ affected was the liver; and it is not a little singular, that in those cases of the worst kind of this fever, which terminated fatally, this viscus was found either in a loose, dissolved putrid state; or sphacelated, and having the consistence, the feel, and colour of rotten cork, or full of abscesses:—in such cases, too, the biliary ducts were rendered impervious by stricture; little bile in the gall-bladder, and that always black, ropy, and granulated. In many cases, several portions of the intestinal canal were inflamed, particularly the duodenum; and here and there evident marks of gangrene were observed. The spleen was greatly enlarged. The mesenteric glands were, generally, enlarged, in a state of scirrhus, or full of pus. The stomach, in general, had its coats thickened, the villous coat abraded, and the blood-vessels much distended. No bile was found in it;—but black mucus, or the fluid discharged resembling coffee grounds. Every part of the body appeared tinged with a deep yellow colour.—It was remarkable that the blood, in the large vessels, was in very small quantity, and had more the appearance of serum or water, tinged with a yellowish red colour, than of blood." 44.

In many of these fevers, whether endemic or epidemic, other authors have found the brain bearing the marks of the vascular excitement which occurred in the course of the fever.

Treatment. The first object, Dr. Chisholm justly observes, is to freely evacuate the primæ viæ, and deplete the vascular system. If the patient be seen early, "a copious bleeding and plentiful evacuation by stool, very often put a stop at once to the disease." "If, however, the disease persists, the bleeding must be repeated, and alvine evacuations again plentifully procured."

“When, at this period, irritability of the stomach seems likely to prevent the retention of the purgative medicine, it should be always preceded by about a grain of opium, or a draught containing 20 or 30 drops of laudanum. If the disease still appears disinclined to yield, the mercurial plan must be adopted without delay,—but further bleeding is generally unnecessary or hurtful—five grains of calomel, with or without opium, according to the state of the stomach and bowels, are then to be given in a little treacle or syrup, and repeated every two, three, or four hours, according to the urgency of the symptoms, and the degree of danger apprehended.—Thirty or forty grains have, generally, brought on ptyalism.—When this happens, all the alarming symptoms disappear. In three or four days after the patient becomes convalescent—but the disease has too often proved obstinate under this milder treatment.—When, therefore, the symptoms of a more formidable fever appear, and the danger is evidently imminent, the dose of calomel should be increased even to 20 or 30 grains every third or fourth hour; and, if the vomiting increases, various means should be employed to allay the irritation of the stomach. These means are opium, ether, effervescing draughts, blisters to the inside of the thighs, and the very frequent use of common laxative clysters, or of those consisting of a watery solution of assafœtida. But mercury, assisted by cold affusion, must be mainly trusted to; and its exhibition, under the untoward circumstance of an irritable stomach, must be varied in every possible way—by injection, by friction, without measuring or attending to the division, of the strongest ointment, into portions, but rubbing it on every part of the body, *ad libitum*, until the effect, on which alone safety depends, is produced. I can confidently assure the young practitioner, that not a single patient in my practice, died, even under the worse form of the disease, if mercury could be introduced in sufficient quantity to produce ptyalism. But the practitioner must not be afraid to use this medicine with the utmost freedom in such cases;—he must have confidence in it, and persevere until the object is obtained. Abundant *feculent* discharges are necessary, whilst mercury is producing its specific effect; and this may be done by mercury (calomel) alone; or, if there is constipation, by the addition of jalap, or the extract of colocynth: but an opposite state of the bowels is by far more frequent, and rather requires the restraining power of opium.—I may sum up the treatment I have uniformly adopted since the year 1791, in Yellow Remittent Fever, thus: it is my first intention to relieve the system in general, by plentiful and reiterated bleeding and purging; but having effected this, during the first 24 or 30 hours of the disease, long experience has convinced me, that it is upon a new action being excited that the safety of the patient depends. Although many instances have occurred, of a copious and protracted diaphoresis, or an abundant and sudden flow of urine, have removed every complaint, yet I was chiefly, perhaps always directed in forming a favourable prognosis, by the supervention of mercurial action on the gums and salivary glands.—Many instances have occurred to me,

which have taught me not to despair whilst the most distant hopes remained of accomplishing that : and therefore, where this action has been tardy, and where there are at the same time, symptoms of the most imminent danger, I have endeavoured to introduce the medicine in every possible way, and assisting the means I employed by cold bathing, and, if necessary, by the use of spiced wine and nourishing food made as acceptable to the stomach as possible." 46.

Our own observations confirm the truth of the above therapeutics, which we recommend to the serious attention of the young tropical practitioner.

The second chapter of this division of the work is on intermittents, and contains many excellent remarks and judicious instructions. When the fever intermitted regularly, whatever was the type, our author exhibited the cinchona or arsenical solution (the latter is the more powerful of the two) after proper evacuations. When the paroxysms did not cede to this, a pill composed of colocynth extract and pil. hyd. was ordered every night at bedtime—a precaution very necessary, Dr. C. observes, when the bark is given.

"But when the succession of paroxysms is very frequent, the intermissions very imperfect, and no indisposition appears in the fever to become otherwise, local congestion and inflammation should be considered as the real disease, and the irregular fever as purely symptomatic. In this case, no time should be lost in giving mercury, with such freedom and so guarded with opium, if necessary, as to excite ptyalism as soon as possible. This medicine, thus given, has never failed to stop the progress of the disease. It has unfortunately happened, sometimes, that the disease has been so insidious, that the second paroxysm, after an imperfect intermission, has completely overwhelmed the patient, and put an end to his existence. I have therefore made it a rule of practice, in these irregular fevers with aggravated symptoms, to ascertain with anxious minuteness, whether pain and fulness exist in the hepatic region—and if they do to begin the treatment with copious bleeding and purging ; and then to proceed to the use of mercury, in the same confident manner as in the yellow remittent fever.—The disease, in truth, arises from the same cause, is then marked with the same symptoms, produces the same morbid changes, is possessed of the same danger, and consequently must be treated in the same manner." 51.

In our author's experience, there were few or no relapses when the cure was effected by mercurial ptyalism after proper evacuations ;—owing, he conceives, to the removal of local disease, of which the more violent kinds of intermittents, as well as remittents, are symptomatic. Removal, however, from the sphere of the miasmatic exhalation is necessary to prevent relapses in all cases. The usual sequelæ of fever, as visceral obstructions, bowel complaints, &c. do not occur

when the fever has been checked by a mercurial action in the system. Dr. Chisholm has seen the most unequivocal proofs of sol-lunar influence on intermittents within the Tropics.

Chap. III. Dysentery. Dr. Chisholm observes that there are two species of dysentery between the tropics—one proceeding from suppressed perspiration, irregularities in diet, clothing, &c. exposure to currents of air when the body has been heated. The other species, and by far the more dangerous, occurs in the hot and rainy season, and has for its cause, Dr. Chisholm thinks, the miasmata of marshes. The first is sporadic—"and the proximate or immediate cause seems evidently to be irritation of the larger intestines from an overcharge of their vessels, and consequent inflammation of their coats." The second is always a symptomatic disease, having its seat in the liver and small intestines." Although we believe the *function* of the liver to be implicated in all cases of dysentery, we cannot bring ourselves to go the length of Dr. Chisholm's position that this organ is the exclusive seat of the disease in those epidemic dysenteries which spread devastation through marshy countries.

Dr. Chisholm's description of the idiopathic dysentery (as distinguished from the hepatic or miasmal) does not differ from that of other writers; and the same may be said of the *post-mortem* appearances. The following extract will exhibit one mode of treating the mild species, where circumstances render the mercurial treatment inadmissible.

"Although the early symptoms of dysentery are generally deceitful, and although, therefore, it is the part of prudence to employ a remedy of well-ascertained efficacy in the treatment; yet I shall here detail the means that may be resorted to in cases evidently of a mild nature, or in which the proximate cause may be supposed or deemed, superficial inflammation of the lining membrane of the intestinal canal, when mercurial ptyalism is inadmissible, from constitutional latent disease, or from the prejudice or fears of the patient. No disease manifests the sympathy between the skin and the intestinal canal, more than dysentery. The great object, therefore, should be to restore the skin to a soft permeable state; for in this disease it is generally, indeed I may say always, dry and corrugated. When a gentle, warm diaphoresis is excited, the patient always experiences relief; the motions become less mucous, and more feculent. When this method of cure is resolved upon, it may be conducted in the following manner.—After the full operation of an emetic, and a purgative, five grains of James's powder may be given every four or five hours, till a copious, warm diaphoresis is thrown out, which ought to be kept up by plentiful dilution with warm rice or barley water, for several hours, or until the griping and tene-

mus cease, and the motions assume a better, that is, a less mucous and a more feculent appearance.—This state being produced, the bark may be given in pretty large doses, mixed with port wine or with water; and a pill, such as the following, thrice in the day, or only once at bed-time, according to the circumstances of the case: *R. opii gr. ss. ad. gr. 1 pulv. Jacob. gr. iij. balsam Peruv. q. s. f. pilula.* When the sweat is slow in breaking out, it may be promoted by hot fomentations;—or what is better, by wrapping the belly and lower extremities in a blanket, wrung out of boiling water, or a hot decoction of aromatic herbs.—The efficacy of the last application in relieving the symptoms, and bringing on a diaphoresis, I have often witnessed in a very remarkable degree. An excellent mode of exciting diaphoresis, without the disagreeable inconvenience of having the body enveloped in wet, is by means of the vapour bath, which may be very conveniently and agreeably employed in the manner described in the chapter on rheumatism.” 57.

Another mode of treatment in recent cases, is an emetic of ipecacuanha or sulphate of zinc, given in the evening, after which, from four to ten grains of the Dover's powder may be administered at bed-time, with from two to six or seven grains of calomel mixed together in a spoonful of treacle. Our author recommends small doses of sulphate of magnesia the next day, if some stools are not procured by the calomel—after which, the Dover's powder and calomel are to be again repeated in the evening. For many other therapeutical measures we refer to the volume itself.

Hepatic Dysentery. A fixed pain at the pit of the stomach and constant headach, at the very commencement of the disease, are the only symptoms which serve to distinguish hepatic from idiopathic dysentery, according to Dr. Chisholm.

“ In other respects, it does not seem to differ from the idiopathic or common dysentery; so that it can almost never be known but by the experienced, until those symptoms appear, which, whilst they manifest the peculiar nature of the disease, also, unhappily, point out its approaching fatal termination. It is, therefore, I repeat it, of the highest importance, when the two symptoms I have mentioned appear at the commencement of dysentery, to ascertain the local peculiarities of the patient's place of residence—that is, whether the patient has resided, and contracted the disease in the immediate vicinity of marshes, and what are the diseases which have most frequently occurred in the situation—whether there is any epidemic at the time. If the situation is marshy, and the epidemics have been, or are, remittent and intermittent fevers, and hepatic complaints:—then, the pain at the pit of the stomach and headach, accompanied by a disposition to frequent alvine dejection, should be considered as indicating hepatic dysentery. Every chance of success depends on the

early detection of the disease, and, of course, the early adoption of the treatment which experience has proved to be the only useful one. Towards the fatal period, which, in the worst form of hepatic dysentery, comes on with an overwhelming rapidity, the sudden and unexpected supervention of a general coldness of the surface, with partial cold clammy sweats, an almost total cessation of pulse, an excessive sinking of the spirits, and a discharge from the bowels, composed of a slimy brown substance, floating in a fluid like bloody water, and having a fetor of intolerable offensiveness, mark the irremediable progress the disease has made. This is the worst state of the disease, in which no human means can avail—a less unfavourable form of the disease presents some symptoms less equivocal, and which more early discovers its nature. The commencement, and for three or four days, the symptoms are those usually observed in dysentery; but at the end of that time, together with the pain at the pit of the stomach and the headach, a considerable anxiety at the præcordia, and a sensation as of a continued pressure in the right hypochondrium, with frequent stools, composed of a fluid like the washings of raw meat, are perceived. These symptoms should be particularly noticed, and deemed as truly characteristic of the seat of the disease being the liver. It will be happy for the patient, and creditable to the practitioner, if they are so; and if they are made the regulating principle of the treatment. But if these signs are neglected, and the fatal ones permitted to come on, nothing can be useful; and the progress of the disease from thence to death is most rapid, indeed, so much so, that from the appearance of these signs, death takes place in six, ten, or at the most twenty-four hours."

On dissection, our author found the "liver of all viscera the most diseased," being inflamed, enlarged, partially suppurated, or, in some portions, sphacelated. The whole intestinal canal was more or less inflamed, especially the small intestines.

"The mode of treatment I adopted in this obscure disease, after I became acquainted with its nature, was the following. After bleeding once or twice, if the pulse indicated the repetition, a vomit of tartarized antimony, or of what I found generally preferable, sulphate of zinc, and a sufficient purge of castor oil, the following pills were given.—℞ submur. hydrarg. gr. iij. pulv. ipecac. gr. iv. opii, gr. ss. mucilag. q. s. fl. pilulæ duæ. The two were given every three hours during the twenty-four. Emollient glysters, such as the following, were administered thrice in the day—℞ amyl. solut. ℥vi. tinct. opii, gt. lx. ad. c. pulv. ipecac. gr. viii. ℥ fl. enema. If the danger was imminent, and the symptoms increased in urgency, the dose of calomel was augmented in such manner as to excite pyalism as quickly as possible. When this took place, danger ceased, and the patient soon became convalescent. I first began to use this mode of treatment in the year 1786, and have most successfully continued it ever since. It is now more generally known, and every judicious practitioner employs it." 60.

The pathology of dysentery "drawn up by a learned and ingenious friend of the medical staff of the army," is almost verbatim and literatim that which was given by Dr. Johnson seven years ago, in his work on tropical climates, and we wonder that Dr. Chisholm, whose candour and impartiality are every where conspicuous, should have, in this instance, failed to observe the good old rule—"sum cuique."

Hepatitis. The next subject discussed by our very intelligent author is hepatitis. We are much inclined to coincide, though not to the full extent, with Dr. Chisholm in the following dogma, sweeping as it may appear to those who have not well considered the subject. "All the endemic diseases of hot climates have their immediate origin in the over-excitement of the hepatic and cuticular systems—fever, dysentery, and hepatitis, are thus produced." He properly observes that the whole of the abdominal viscera are so connected in their functions, that if an important organ is excited to unhealthy action, all the rest sympathize with it, and the usual consequences, inflammation, congestion, or morbid secretion, follow.

"Taking a more extended view of the pathology of the abdominal viscera, we find, that an intimate connexion subsists between the organic system of the skin; and that of the liver; inasmuch, that whatever disturbs the operations of the former, necessarily and concurrently disturbs those of the latter." 63.

We shall give, in his own words, Dr. Chisholm's rationale of chronic hepatitis in hot climates, which, as most of our readers will readily perceive, coincides very remarkably with that of Dr. Johnson, detailed in the work on tropical climates above-mentioned.

"Chronic inflammation of the liver is generally the result of active or acute, and may be thus explained. From previous over-excitement of the hepatic and cuticular systems, torpor and atony, the invariable consequences follow—the secretion of healthy bile is suspended, and the expulsion of that already secreted becomes slow, or altogether ceases. The viscid and tenaceous bile thus retained, stagnates in the biliary vessels, or is taken up by the absorbents into the general circulation, causing the yellowness of the conjunctiva of the eyes, and of the skin; whilst the intestines, deprived of their natural stimulus, become torpid, and accumulation of feces and flatus follows.—Hypochondriasm, the constant result of such a state of things, discovers its usual phenomena, mental depression, solicitude about health, visions of evil, apprehension of death, and despairing consciousness and fear of future punishment. It is indeed wonderful, in this state of the hepatic system, how readily the mind receives deep and afflictive impressions of religious enthusiasm;—

the most gloomy ideas are cherished, although, perhaps, the conduct of life may have been correct and virtuous. I have frequently witnessed this state, and as frequently dissipated it by rousing the liver into a due performance of its natural functions. *Melancholia religiosa*, which, in fact, is only another name for *hypochondriasm*, occasioned by this morbid state of the liver, should never be considered as a disease of the mind. It is physical, not moral derangement;—and, if the proper remedy is so applied as to restore the diseased organ to healthy action, this, the effect of that derangement, will disappear.” 64.

Here Dr. Chisholm describes an anomalous hepatitis, or what we should rather call *hepatic fever*, which he has several times seen both epidemically prevailing, and sporadically occurring in the West Indies, especially among blacks, and young people from the age of 8 to 25—a peculiarity, doubtless, owing to these people being more exposed to the causes, which were observed to be exposure to cold and marsh miasmata.

“The disease began with a considerable degree of headach, pain at the pit of the stomach, and tightness across the præcordia, with difficult respiration. The skin was dry, corrugated, and cool; the tongue moist and foul; the belly natural, and the discharge of urine free. No thirst, no sickness, scarcely any diminution of appetite; the pulse soft and not more than 70 or 80, and of a natural fulness. On the second day, the headach increased much; the pain at the pit of the stomach became excruciating; cold shivering came on; the skin, on pressure, communicated an intense, penetrating heat, although, on slightly touching, it felt cold, and its surface excessively dry and corrugated; the tongue covered with a thick moist fur, purplish towards the edges, and gray in the middle. In negroes a bronze or coppery colour on the cheeks, out of which large drops of clammy sweat issued, whilst a greasy moisture overspread the rest of the face; in whites, the colour of the face became dingy with the same kind of moisture—the pulse quickened at once from 80 to 120 and 144, and became hard and contracted. A short cough, or rather a sudden, quick respiration came on, with a sensation at the diaphragm, as if a heavy weight pressed on the lungs, and was about to suffocate the patient. On the sixth day, if the patient lived so long, the pulse suddenly sunk, so as to become almost imperceptible; the greasiness of the face increased, a glassiness appeared in the eyes; a disagreeable cold clamminess over the whole surface took place; a great increase of weight at the diaphragm, and a sense of stricture in the pharynx, with excessively difficult deglutition succeeded; and the whole closed with coma and death. The proportion of deaths to recoveries was as one is to six; and the fatal days were the 3d, 5th, 7th, 11th. Repeated observations and numerous dissections alone directed to a knowledge of the nature of this most treacherous disease.—The morbid appear-

ances were very uniform.—The liver astonishingly enlarged; on its surface, particularly the convex side, an irregular intermixture of red-purplish and tallow-coloured spots, exhibiting a marbled appearance; yet the texture, although the whole so much enlarged, as, in eight cases out of ten, to occupy both hypochondria and the epigastrium, was otherwise, in a natural state, and without the smallest vestige of suppuration or gangrene. All the other abdominal viscera were in a sound state. The diaphragm seemed, indeed, in most cases inflamed, and its blood-vessels distended with blood.—Every other part of the body had a healthy appearance.” P. 66.

After numerous attempts by other means, the following was found to be the best mode of treatment. The patient was bled as soon as possible, until deliquium animi or relief of symptoms was obtained—for which purpose forty or fifty ounces were frequently subtracted at one bleeding. A blister was then applied to the side, and cooling tartarized medicines given, repeating the venesection, *pro re nata*, so that in the course of three or four days our author has known from 40 oz. to 10 lbs. of blood drawn. But it was not found eligible to trust to these remedies alone. On the second day, after the third bleeding, if there were not evident signs of amendment, “which indeed very seldom happened,” from two to ten grains of calomel made into pills, with or without opium according to the state of the bowels, were given three times in the day. “This practice generally brought on a copious salivation in two days. When this was effected the patient was safe. It was astonishing how readily cases of the most dangerous tendency yielded to this treatment; and it was no less so, how quickly the sick recovered their usual health and strength, notwithstanding the great loss of blood they sustained; while many who had been bled more sparingly continued in a languid state for months.”

“It soon became evident, however, that this remedy alone, as I have already observed, could not effect the cure; for when mercurial ptyalism did not take place, while bleeding was liberally employed, recovery was extremely tedious, or the patients died on the 7th or 11th day.—Upon the whole, bleeding to a degree beyond all common bounds, and promoting a copious salivation as speedily as possible, were the only means of cure we placed confidence in.” 67.

In respect to acute hepatitis, it is a little curious that, till about the year 1770, it was unknown—that is, undetected. Yet the causes of the disease must have existed, and been in operation. But in those days it was called “bilious fever,” and no *post mortem* investigations were resorted to. In fact, when our author settled in the West Indies, “the most marked symptoms of hepatic inflammation were entirely

overlooked"—“a putrid diathesis was alone dreaded, and alone provided against by bark, wine, and other stimulating tonics.”

“The natural consequence followed. Hepatic gangrene, hepatic abscess, and hepatic diarrhoea, have destroyed thousands; and yet improper treatment of the original disease, had never been considered as the cause.” 68.

We recommend the following short symptomatology of acute hepatitis between the tropics, to the attention of the young visiter in the Torrid Zone.

“Acute hepatitis often comes on without any previous warning; and is distinguished by violent pain in the right hypochondrium, a tightness across the abdomen, and a fulness, difficult respiration, and inability to lie down in any posture, the most easy position being a sitting one, with the upper part of the body inclined forwards. There is no heat, no quickness of pulse at first; but excessive and undefinable anxiety and restlessness. In this form death sometimes happens, on the 3d or 5th day, from gangrene of the liver.—When the disease approaches more slowly, there are, for some days, the usual precursors of disease, followed by the symptoms of remittent fever, and a sense of fulness and obtuse pain in the right side. At this period, bleeding in a moderate degree, and the operation of a brisk purge, relieve the patient so much, as to induce him to neglect his situation. In a few days, the same symptoms appear again with greater violence; but again disappear by some purging and other antiphlogistic means. All this time, however, the disease is gaining ground, but the apparent mildness of the symptoms, and the ease with which they seem to be removed, throw the patient off his guard; and it often happens that medical advice is not deemed necessary until the disease is completely formed, has considerably advanced, and manifests itself by excruciating pain in the right side, attended with twitchings or spasms, and pain in the right shoulder, great anxiety, excessively difficult respiration, and total inability to lie down. In this state, if the most vigorous measures are not adopted without hesitation, and assiduously pursued, gangrene or suppuration in the liver soon follow.” 69.

The treatment of the first form must be prompt and decided—bleeding till the pain is relieved—abundant purging—and mercurial ptyalism, in the shortest space of time possible. Blisters are merely auxiliaries.

The second form admits of more time, and a slower administration of the remedies—“but the remedies must be the same.” The following observations are equally important and correct. Many a time have we witnessed the truth of them.

“If there is a tendency to diarrhoea before ptyalism is excited, it must be checked by opium. An important fact, in endeavouring

to excite mercurial action, should be carefully kept in view.—If the patient is particularly robust, and of a sanguineous constitution, mercurial action cannot be brought on, until the system is reduced to that level, which permits that action to take place—on the other hand, if the system is low, and the natural constitution of the patient feeble, whilst the hepatic inflammation is going on, a coincidence by no means unfrequent, means of raising it to the level, permitting mercurial action, must be employed whilst the administration of mercury is proceeding. In the first case copious and reiterated bleeding—in the second, the cold infusion of cinchona, and simple though nourishing food, are the means I have found most productive of the desired effect.—Sometimes pyalism comes on rapidly and unexpectedly, and becomes troublesome—*scarcely ever dangerous*. The means of checking it, are the warm bath, opium, occasionally purging, and the use of a gargle, composed of a decoction of dry figs, with nitre, in the proportion of two drachms to a pint—sulphur and the sulphuret of potash have been seldom useful.” 69.

Chronic Hepatitis is generally the result of the acute form neglected or improperly treated. In the East Indies, however, and in Europe, this form of the disease *generally* creeps on without any acute symptoms having preceded. A common, but by no means pathognomonic symptom, is a sense of oppression, fulness, and bulk in the right hypochondrium, accompanied by an obscure, obtuse pain, only occasionally evident to the feelings of the patient—especially after strong drink, suppressed perspiration, falls, or other external injuries, full meals, violent exercise, &c.

“The following circumstances, however, appear more conclusive, viz. pain felt in the right, on lying on the left side; difficult respiration, or a sudden, quick expiration, following an attempt to inspire deeply; and an exacerbation of all the symptoms at a particular time of the day. The third seems peculiar to chronic hepatitis, and therefore more worthy of our attention, when the other less distinguishing symptoms are also present. The exacerbation takes place, generally, about four o'clock in the afternoon of every day, and continues one, two, or more hours. It is marked by aggravation of the other symptoms, and the presence of considerable heat and quickness of pulse, neither of which are at any other time perceived. But difficult respiration, or the quick and sudden expiration following an attempt to inspire deeply, when a fulness and obtuse pain are felt in the right hypochondrium, I consider as the most pathognomonic of all those symptoms ascribed to acute and chronic hepatitis.” 71.

Icteric colour of the skin and eyes is certainly more peculiar to chronic than acute hepatitis. With this colour there is generally torpor of the bowels, and clay-coloured motions.

“In chronic hepatitis, I may further observe, that there is gene-

rally a circumscribed solid substance felt, inclining or suspended, as it may be described, from the right to the left side, on attempting to lie on the latter. It is described by the patient as an unconnected mass, which seems to roll from side to side, according to the position he places himself in;—if bending forward, which is, indeed, the easiest posture in this disease, it seems to press against the parietes of the abdomen;—if towards the left, it inclines that way, and gives considerable pain of that kind, which we may conceive a heavy weight suspended from the right side may give, and is well defined by the expression *dragging pain*;—if backwards, it rests on the spine, and occasions instantaneous acute pain, with tendency to syncope.” 72.

The nature of this disease renders it an insidious and dangerous complaint; and thousands perish under its influence, who might probably be saved by timely interference. The following is our author's *methodus medendi* in chronic hepatitis.

“In the treatment of chronic hepatitis, the two principal objects must be, 1st, to remove any inflammation that may be present in the liver; and 2d, to rouse it to the natural and due performance of its functions.—The first is obtained by moderate, general, or partial bleeding and purging; and the second, by exciting a gentle mercurial ptyalism, and giving tone to the secreting vessels, by the use, at the same time, of mild tonics, combined with the nitric acid, and interposing every second or third day a plentiful discharge from the bowels. To excite the degree of ptyalism required, if the bowels are torpid, their usual state in the disease, from two to five grains, or even more of calomel, may be given only thrice in the day; or if diarrhoea is brought on, opium may be added. But in this open state of the bowels, it may be better to introduce the mercury by friction. For this purpose, a drachm of the strongest mercurial ointment should be well rubbed in on the inside of the thigh every night, or oftener, according to the excitability of the patient, until a gentle ptyalism is established.—The following draught should also be taken thrice in the day—*R. infus. gentian.—colomb. aa 3vi, tinct. cinchon. comp. 3i, acid. nitrici, gtt. viij. ad. gtt. xij.* If there is evident tumour in the right side, a seton should be introduced over it. When the bowels are torpid, during this course, the following powder and draught should be given every second or third day, or seldomer, according to circumstances: *R. submur. hydrarg. gr. ij. ad. v. pulv. rhei. gr. x. ꝑ fl. pulvis horâ somni sumendus—R. infus. sennæ 3iss. magnes. sulph. 3i. tinct. sennæ—card. comp. aa 3i. ꝑ fl. haustus primo mane post pulverem sumendus.*—This mode of treatment I have uniformly found successful, when the disease admitted of cure, that is, if instituted before the supervention of abscess. But, indeed, in very many instances, if the tumour is the result of abscess, it gradually disappears, through the increased action of the absorbents, brought about by this course; or, as happened in a few

cases, the pus passes off by the common biliary duct into the duodenum, and thence is discharged by stool.—If, however, the tumour increases, and the abscess proceeds to maturity, without the possibility of arresting it by any internal means, and points outwardly, with evident adhesion to the integuments, then an opening must be made, and the matter discharged.” 74.

In the eastern hemisphere and in Europe, a slower introduction of the mercury than is above directed, is generally sufficient; but, it is absolutely necessary to keep the mouth sore till the symptoms are entirely dissipated, else the patient is left in a worse state than before. In chronic organic diseases of the liver in this country—which are often of a tuberculous or scrofulous nature, mercury, and indeed all other medicines are of little avail. Gentle aperients—local abstractions of blood—counter-irritation, and taraxacum with the mineral acids, are the principal remedies.

The remainder of the volume before us is chiefly occupied with a class of diseases as common (or more so) in this country as between the Tropics. We shall therefore reserve it for separate consideration in the succeeding number of this Review. Our European readers, we are persuaded, will have been gratified and improved by what we have extracted from the first half of the volume—they will find in our next article matter of high import, which it will behoove them to study well. Our tropical brethren, more especially those in, or proceeding to, the West Indies, may rest assured that this is one of the most valuable publications that ever issued from the press on the diseases and medical topography of the western hemisphere. They will not, therefore, fail to place it in their libraries. To the venerable, zealous, and able author himself, we offer the tribute of unfeigned gratitude, respect, and esteem. He has wound up a long and active life by bequeathing to posterity a legacy that will render that life as useful to others hereafter, as it has been honourable to himself in times past. He has had his “youth of labour;” and it is but right that he should now have his “age of ease.” He spent the hey-day of health amid the burning savannahs of Western India. He has now but—

“To husband out life’s taper at its close,

“And keep the flame from wasting by repose,”

amid those peaceful valleys and alpine solitudes that formed the cradle of a *ROUSSEAU* and the retreat of a *GIBBON*.

VIII.

A Treatise on Diseases of the Nervous System. Part the First: comprising Convulsive and Maniacal Affections. By J. C. PRICHARD, M. D. late of Trinity College, Oxford; Physician to St. Peter's Hospital and the British Infirmary. Octavo, pp. 427. London, 1822.

(First Analytical Article.)

DR. PRICHARD's former works—his researches into the physical history of man; and his observations on fever, have ensured attention to every subsequent production from the same pen. We apprehend that the present work upholds the character of the writer, and will experience a favourable reception from the reading and thinking part of the profession. We say the reading *and* thinking—for there is but a comparatively small class who read *and* think. It unfortunately happens, too, that many of those works which have required the greatest thought in the construction, and demand a corresponding mental exertion in the perusal, are those which are least read or studied by the profession at large. We need hardly wonder at this, when we consider the harassing labours of the practitioner, which must render him very much indisposed to the examination of books which impose the task of *study* after the fatigues of the day.

Can we wonder that this, which is the most numerous class, should gladly avail themselves of such analytical portraits, as concentrate the pith or marrow of the subject, and thus lead to the direct application of principles at the bed-side of sickness? We have long had the most authentic means of knowing that, were it not for these analytical portraits nine-tenths of our best productions would never travel beyond the circle of a few book-worms, or their information be diffused to any distance beyond the publisher's groaning shelves.

These reflections have been excited by a conviction that the valuable volume before us will never circulate, *in propria persona*, to one-tenth the distance it ought to go—while the regret is heightened by a consciousness that all our exertions in delineating its qualities or concentrating its information, must be very inadequate to the object in view. It will be readily enough imagined that under these circumstances, we shall adhere, with more than usual rigour, to our fundamental principle of confining our analytical labours to the most useful and practical parts of a volume embracing a

great proportion of ingenious physiological and even metaphysical reasoning and inquiry.

It is proper to state, in limine, that our author has held, during the last ten years, the appointment of physician to an Institution where a great proportion of the complaints belonged to that class of maladies which are the subject of this treatise. Here a variety of phenomena have presented themselves, from time to time, to his notice, which appeared to throw light on some pathological inquiry, or to suggest some practical indication. With the hope of contributing his mite to the general stock of knowledge, respecting an interesting but obscure class of diseases, our author has modestly submitted this volume to the public, and we are convinced that, in so doing, Dr. Prichard has materially added to the edifice of his former reputation.

Our author observes in his preface, what indeed several others have lately observed, that facts which have fallen under his notice induce him to suspect that disorders of the nervous system are, in the majority of cases, secondary and sympathetic affections—often at least symptoms of some latent disease in another part of the constitution—particularly in those organs which are subservient to the natural functions. This observation led our author into the attempt to discriminate these affections into certain classes, according to the nature of the primary diseases, of which they are symptoms or indications. The arrangement which our author has adopted certainly appears very complicated, and will doubtless be objected to by fastidious critics and indolent readers; but we think he has offered substantial reasons for his plan, which appears to place the facts and analogies on which his conclusions are founded, in the clearest point of view.

The first chapter of the work, containing a “physiological survey of the functions of the nervous system,” intermixed with a considerable proportion of metaphysical observations and speculations, we must pass over in a very rapid manner. We may first remark, en passant, that Dr. Prichard, while he views the brain and nervous system as the *instrument* of sensation, perception, memory, and many other intellectual operations, yet considers some of the higher faculties—judging or reasoning for example, as appertaining to mind, soul, immaterial principle, or whatever other designation we may apply to that mysterious essence. He justly observes that there is no analogy between remembering and judging—between the operations of a faculty which only recalls the impressions produced by external objects, and of one which is conversant with abstract relations, the

acts of which are altogether distinct from any other class of intellectual phenomena. Our author avers that he knows of no disease of the nervous system in which the *reasoning* or the intellectual faculty is perverted. It is a common remark that lunatics reason correctly from false premisses.

"If this faculty is really not subject to disease, when the brain is in a distempered state, and its functions are generally thrown into disorder, this circumstance seems to afford a presumptive proof that its exercise is independent of the brain, and belongs entirely to the mind." 25:

Dr. Prichard's divergence from materialism is still more conspicuous in the following passage, wherein the *passions* are properly attributed to the immaterial principle within us.

"I am at present acquainted with no fact, either in physiology or pathology, which furnishes any ground for presuming that those mental phenomena; which are termed passions, take place through the instrumentality of any corporeal processes whatever. It seems to me probable that they are affections of the soul, or immaterial principle, and that primarily, and without the co-operation of any part of the corporeal structure. The phenomena displayed in the viscera are merely the effects of the sympathy between the mind and the body: they are at any rate consequences, and not causes. As the organized structure acts upon the mind, in the case of sensation and perception, so, in the instance of the passions, the primary operations of the mind react upon the body. They act in different individuals upon different organs: the influence of terror in one person gives rise to violent palpitation of the heart, in another to diarrhœa." 30.

Our author makes many acute and highly interesting remarks on the passions, appetites, propensities, affections, &c. and comes to the conclusion (in which we are disposed to coincide) that even *these* are traceable to the immaterial principle, and are all resolvable into the *desire* for pleasure, and the *aversion* to pain, which desires and aversions it would be absurd to attribute to mere organized matter. In these conclusions it is evident that Dr. Prichard is directly at issue with the speculations of Gall and Spurzheim.

In respect to volition, or that conscious act preceding every voluntary movement of the muscles, there is no reason, Dr. Prichard thinks, for believing that it has any local seat in the body, or that its exercise is effected or preceded by means of any organic change. It is an act of the mind, in the performance of which the nervous system, as far as we know, has no share.

"Volition may be said to stand in the same relation to the pas-

tions and propensities, which judgment, or the rational faculty, holds with respect to the other powers of the understanding. Sensation and perception, memory and imagination, present to this highest intellectual faculty the objects on which its powers are exercised. It stands as supreme arbiter: surveys the testimony of the inferior faculties; compares, discerns, judges what is true and what false; what right and what wrong in morals; what is expedient and what inexpedient in the business of human life. In like manner, the will compares the various motives which are presented to it by the desires and aversions, the appetites, affections, and other active and moral powers, and makes its own choice from among them. It is important to observe, with respect to the theory of the mind, as well as to that of the nervous system, that these two highest powers, the principal or governing ones, in both classes of mental faculties, are, as far as we can learn, distinct from, and independent of, the organization; although the objects on which one is exercised, and the means by which the other produces its effects, are furnished by the corporeal organs.

"Volition, as we well know; even an act of the will to move the limbs; may take place in a paralytic; but it becomes abortive, unless the brain, the nerves and muscles, be in a state to obey its mandate." 39.

The second chapter of the work before us comes more immediately to the subject of the treatise, and exhibits a slight, but very interesting pathological survey of the diseases incident to the nervous system. The author justly observes that our principal or only resources in the investigation of the subject are dissection—the phenomena during life—and an attentive observance of the juvenia and lœdientia. In the second section of this chapter the author gives a rapid view of the connexion of disorders of the nervous system—particularly between apoplexy, paralysis, epilepsy, mania, vertigo, tremor, somnambulism, chorea, hysteria, &c. Every practitioner knows the great family likeness that prevails among the diseases above specified—how often one precedes, succeeds, or is converted into another. Numerous instances and illustrations of these connexions, successions, and conversions are brought forward by Dr. Prichard from his own experience and the most authentic records of others, and to these we would wish to direct the attention of our junior brethren in particular.

In the second section the application of this doctrine of family likeness is made to the pathology of the diseases specified. It is observed that disorders which are so nearly allied as to be liable frequently to supersede or pass into each other, must, (as it should seem,) when they have their seat in the same structure, "depend on similar deviations from the healthy condition of the system." The predis-

posing and remote causes may, indeed, be various or dissimilar; but the particular condition of organic structure, from which the phenomena of the disease immediately result, is probably always similar in the same complaint. What, then, is this pathological condition? Our author shall speak for himself.

"In several of these complaints, as it is well known, the most apparent circumstance in the morbid state of the brain consists in a disproportionate circulation of blood through that organ, or in an undue accumulation in the head; whether attended with those appearances which accompany inflammatory, or what is termed increased vascular action, or merely amounting to simple congestion. As it is well known that such a state exists in several of these disorders, we are entitled, if the doctrine just laid down be well founded, to infer that a similar condition is actually present in other complaints of the same class, although the proofs of it are not so decidedly manifest. This conclusion is, however, so important, that it deserves to be more particularly examined.

"In apoplexy it is well known that the most apparent circumstance in the morbid state of the brain, consists in an excessive action of the arteries belonging to the encephalon; or, at least, in an unusual repletion and distention of the vessels; or in what is termed an increased determination to the head; often producing effusions of blood, or of serum, within the skull. If the foregoing remarks are well founded, we have from this fact reason to believe, that the immediate cause of other disorders, which, by their frequent conversions and transitions, are shown to be allied to apoplexy, consists in a deviation from the healthy condition of a similar kind, though probably very different in degree, and modified by a variety of circumstances." 68.

Our readers are aware that this doctrine approximates to, or rather that it is identical with, the pathology of nervous diseases, as set forth in the incomparable work of Dr. Parry the elder. These doctrines are strongly supported by the post-mortem as well as the living phenomena. Our author observes that, when we generalize the appearances discovered in the heads of persons who have laboured under the diseases alluded to, they are found to resolve themselves, for the most part, into the effects of inflammation and of increased vascular action—such as adhesion of parts within the cranium; effusions of serum into the cavities; distention of the vessels; abscesses; hæmorrhagic effusion into the ventricles, on the basis, and into the interstitial openings of the brain; redness of the membranes, &c.

Other species of disorganization, indeed, besides the unequivocal products of inflammation, are occasionally discovered in the encephalon, in some forms of nervous diseases, as tumours, induration, softenings of the brain, &c.

But even these are probably the consequences of disordered vascular action or inflammation, though there is no doubt that, in many cases, the irritation they produce leads to an increase of the inflammation or sanguineous congestion that gave origin to them.

The doctrine of the *juvantia* and *lædencia* leads to the same result—for if we are called upon to point out one particular indication, or principle of practice which is more generally applicable than any other to distempers of the nervous system, there could be little difficulty in concluding it to consist in the means adapted for restraining determination of blood towards the head, and diminishing the quantity of that fluid circulating through the brain. *Bleeding*, for instance, general or local, though not universally applicable to all states and periods of nervous disorders, yet is very generally serviceable at one period or other of most affections of this kind, when severe or long continued. The instances to the contrary are little more than exceptions to a general rule. Passing over a good deal of shrewd observation and keen remark, we come to the third chapter, containing a general description of epilepsy.

Our author considers it impossible to give any thing like a correct definition of epilepsy, without dividing the disease into at least two species—the convulsive and tetanic epilepsy. The first or more common form may be thus defined:—"A disease manifesting itself in sudden fits, attended with a total or partial loss of sense and consciousness, and a general convulsive agitation of the voluntary muscles." The less frequent or tetanic form is distinguished by sudden fits of coma, or loss of sense and consciousness, without convulsion, but attended with a tonic spasm of the system of voluntary muscles, the whole trunk becoming rigid and inflexible during the fit. To these two forms, Dr. P. thinks, we may add a third, where the patient, with or without the premonitory symptom of vertigo, falls down in a state of insensibility resembling profound sleep, the muscular system remaining in a completely relaxed state. This last species our author designates by the term *Leipothymia*—or more correctly, "*Epileptic Leipothymia*," in order to distinguish it from somewhat similar paroxysms falling under the description of apoplexy, from which, however, it is not always easy of discrimination.

The second section of this chapter contains an outline of the history of the disease. The symptomatology of the common form, or convulsive epilepsy, does not differ from that laid down by our best authors, and is familiar to all practitioners.

"The paroxysm of tetanoid epilepsy is similar, in some particulars, to the attack now described. The patient is seized suddenly; his limbs are stretched, and the whole trunk extended and fixed by a rigid spasm; the eyes are widely open; not reverted, but staring frightfully; the pupils contracted, and quite insensible to the stimulus of the strongest light: "*Erigitur quoque penis in infantibus; in adolescentibus semen ejicitur, et sæpius urina ad magnam distantiam prorumpit.*"* 90.

These two forms of epilepsy, though differing in appearance, are yet closely allied in pathology. In epilepsy, as in most other diseases, there is great variety in the symptoms in different individuals. In some cases there are premonitory sensations, in others none. In some instances the attack is not accompanied with convulsions. The most unvarying symptom is the state of stupor or insensibility during the paroxysm. In a very great majority of cases this amounts to complete coma. In a few very rare cases our author and others have been able to discover some slight degree of sensibility or consciousness during the paroxysm.

It is curious that epileptic attacks happen much more frequently during sleep than in waking hours. In one remarkable case under our author, a fit scarcely ever failed to seize the patient immediately after falling asleep, even in the daytime. The disease pretty equally affects males and females—nor are there any temperaments, habits, or constitutions exempt from its attacks. There are periods of life at which epilepsy is more prone to occur than at others. Infants are subject to the disease; but in them it generally arises from irritation in the bowels, and disappears with the exciting cause. The first dentition also is a critical period, but if the disease appear then, it generally goes off when the dentition is completed. Epilepsy often appears, for the first time, about the eighth, tenth, or twelfth year, in which case there is danger of its becoming habitual. Still there is a prospect of its subsiding at puberty; but if this period pass without amendment, there is little hope afterward. If, in females, the coming forth of the catamenia sometimes assist the constitution in getting rid of the disorder, it much more frequently gives rise to it—at least there is no period of life in which females are so frequently attacked with epilepsy as the period of first menstruation. The intimate connexion between epilepsy and other nervous disorders has been observed by all practitioners.

* Dr. Prichard says he never noticed the ejection of either semen or urine. We have seen the latter very often, and we believe it is no uncommon phenomenon. Dr. Gregory, in his lectures, states that he has seen both ejections.—*Rev.*

"But," says our author, "the disorder to which, of all others, epilepsy would appear, from this and similar observations, to be most nearly allied, is mania. I believe these diseases more frequently pass into each other, and what is more to our present purpose, more frequently appear in persons related to each other by consanguinity, than any others of the same class; except those affections which are strictly considered as merely modified appearances, or as sequelæ of the same disease." 97:

Terminations, Consequences. In children the epileptic fit sometimes terminates fatally, without any satisfactory appearances on dissection. In more advanced years this is rarely the case, unless the paroxysms are very frequently repeated at short intervals, in which event, there is danger of life or intellect. Severe epileptic fits give occasion to paralysis, amaurosis, and other consequences resulting from lesions of the sensorium. Whether the fits are severe or not, if long continued, and especially if the intervals be short, the memory and other mental faculties generally suffer, and fatuity or idiotism is too often the result of severe and inveterate cases. Another concomitant of epilepsy is "*mania epileptica*," resembling the delirium of phrenitis, and probably depending on a similar physical condition of the brain. This affection generally appears when the patient is expected to revive from the comatose state consequent on a severe fit—in some instances it appears without any previous fit.

"The face is flushed, and the aspect of the patient is like that of a man under intoxication; he attempts to start from bed, and run about, and on being withheld, vociferates and endeavours to overcome resistance. Sometimes an appearance of maniacal hallucination displays itself, but more generally the disorder resembles phrenitic delirium. It commonly continues one, two, or three days, during which the patient requires confinement in a straight waistcoat, and then gradually subsides, and the patient returns into his previous state." 100.

Pathology of Epilepsy. Our author thinks, and in this he is borne out by facts, and anticipated by other writers, that "*a preternatural influx of blood into the vessels of the encephalon, or an unusual fulness in some part of the vascular system of that organ,*" is the immediate precursor and occasion of epilepsy.* The reasons in which Dr. Prichard grounds this pathological doctrine are—1st, The intimate relation which epilepsy bears to other disorders of the ner-

* See Fothergill, Cullen, Parry, Johnson, among the moderns; and most of the ancient physicians.

vous system, depending confessedly on determinations of blood to the sensorium. 2dly. A consideration of the circumstances which most frequently give rise to the disease, and which are calculated to occasion morbid plethora of the cerebral vessels.

“ Thus epilepsy often occurs in persons who have rapidly increased in bulk and fulness of habit : in men of indolent habits, who live luxuriously ; the quantity of blood in the body being excessive, a slight change in its distribution occasions excessive local plethora.

“ It occurs in females who labour under suppression or retention of the catamenia, or when the flow is scanty and difficult. Such women are chiefly subject to the attacks at the periods of menstruation, when it is well known that in the defect of the natural relief of the system, a variety of morbid determinations take place, sometimes to the vessels of the stomach, occasioning violent gastrodynia with hæmatemesis ; sometimes to the pulmonary vessels, giving rise to hæmoptysis ; at others to the external vessels of the head, when the consequence is a profuse epistaxis : all these phenomena have been witnessed over and over again by every medical practitioner. When epileptic fits appear under the same circumstances, we have reason to believe that they arise from an analogous cause, viz. a determination to the vessels of the brain.” 102.

3dly. The phenomena of the paroxysm itself indicate determination of blood to the head—as flushed and turgid countenance—pulsation of the carotids—dilated pupils—stupor during the fit, vertigo preceding, and headach following it. 4thly. The consequences of epilepsy lead to a similar inference. Thus we not unfrequently see instances where the brain has sustained such injury from epileptic paroxysms as to produce permanent fatuity, or palsy, or incurable deafness, or amaurotic blindness. The appearances on dissection, though various, resolve themselves, Dr. Prichard thinks, into the evidences of inflammatory action. The most common of these appearances are a turgid state of the arachnoid vessels ; sometimes a reddened condition of the cerebral substance itself ; serous effusion into the cavities or on the surface of the encephalon. Tubercles are found sometimes in the brains of epileptics ; “ but they appear to act as occasional causes, inducing, at times, local determinations to the head.”* There are, we are aware, several cases

* “ Even when epilepsy,” says Dr. Johnson, “ is determined by organic disease in the brain itself, this organic change can only be looked upon as a *predisposing* cause. It is the derangement of balance in the circulation and excitement alone that can produce the immediate phe-

on record, where no morbid appearance has been found in the brain after the death of an epileptic patient; and we can only account for this by supposing, that such an organ as the encephalon may be so much disturbed in function sometimes as to occasion death without leaving any perceptible traces even of vascular congestion. Dr. Prichard seems not to take into consideration the state of excitement or irritation which we believe always precedes the vascular turgescence of the brain in epilepsy, and which may terminate life before the vascular phenomena become apparent.

Here Dr. Prichard introduces some cases illustrative of certain portions of the foregoing text, among which are two interesting cases from that judicious and excellent physician, Dr. Laird, of Guy's Hospital, showing the power of severe paroxysms of violent coughing in occasioning a state similar to, if not identical with, epilepsy. We shall introduce one of these cases, which is short.

“ ‘The first,’ says Dr. Laird, ‘was that of a gentleman, about the middle period of life, and of rather full habit of body. He became, early in the spring of last year (1820) the subject of cough, which recurred in paroxysms, and was at its commencement unattended by febrile excitement, approaching in its character to hooping-cough, which was at that period very prevalent, and which there was no certainty of his having previously had. As the paroxysms increased in severity and frequency, they were accompanied by much flushing of the countenance, and upon several occasions with entire insensibility; of short duration, however, and terminating in the expectoration of some remarkably tenacious and viscid mucus. During the state of unconsciousness the eyes were fixed, the tongue protruded from the mouth, the countenance bloated, and the pulse quick and weak. The difficulties, by which the powers of life seemed in this struggle to be sometimes nearly extinguished, appeared to arise from stricture of the glottis; in the first instance, probably of a spasmodic nature, and the danger by which he was threatened, to be apprehended from instant suffocation. Under general and local loss of blood, inhalation, and the continued exhibition of conium, ipecacuanha, and mercury, the complaint gradually gave way; and there have been since neither any symptoms of pulmonary mischief, nor any disturbance of the functions of the brain.’ ” 111.

We must deviate from Dr. Prichard's plan of blending the history, pathology, and treatment of *mania* with that of epilepsy, because we mean to leave over the *former* disease till our next number. We shall therefore pursue the sub-

nomena of epilepsy. The organic change that predisposes to this occasional orgasm is always present.”—*On Derangements of the Liver*, 3d Edition.

ject of epilepsy in the present article, without questioning the propriety of our author's plan, or the kindred affinity of the two diseases.

Previously to entering on the particular history of *uterine epilepsy*,* our author makes some very judicious and interesting general remarks on regular and irregular determinations of blood to particular organs and structures of the human body. Our readers are aware that we have often endeavoured to show that the efficient cause of local determinations of blood must be sought in the vessels of the *part* itself, and not in any power of the heart or general vascular system. We find that Dr. Prichard adopts this doctrine also. "It is obvious, indeed, that the last step in the process which gives rise to the determination of blood towards a particular organ, is a dilatation of the vessels of the part." We have no doubt that this dilatation is an *active*, not a passive process, effected through the medium of the nerves. The heart has the power of active dilatation as well as contraction, and why should not the vessels have the same power? We fully agree with our able author in his theory of menstruation. He justly observes, that so great a portion of the vital fluid, and so much of the energy of the female constitution is directed in a particular channel during utero-gestation, and the subsequent period of suckling, that, after these exertions have ceased, the system would be subject to a formidable train of maladies, from irregular determinations, if Nature had not supplied a supplementary resource to divert the accumulating energy of the constitution into a particular channel—the catamenial. Dr. Prichard might have added, that the wisdom of Nature is manifested by the catamenial discharges anterior to pregnancy, in order to prepare the system for the new and extraordinary wants of the uterine, and lactiferous vessels afterward.

History of Uterine Epilepsy. This disorder chiefly affects young females of sanguine temperament, about the commencement of the catamenial epoch, or shortly afterward. Occasionally it takes place at a later period of life, in accidental obstruction of the menses.

* Alexander of Tralles says, that epilepsy is generated in three ways, either in the brain, the stomach, or *other parts* of the body. "*Morbus igitur oomialis tribus modis generatur: vel enim capite primaris laborante, vel stomacho, vel alia quadam particula affecta, et pravitatem in ea subsistentem, ad caput remittente.*" This is as good pathology as we have in the present day. —Ed.

“ In many instances the catamenia have taken place naturally for some months, when, owing to exposure to cold or damp weather, or wetting the feet, at the period of their recurrence, and while they are actually taking place, a suppression follows, and epileptic fits are the consequence. In other cases, and without any assignable cause, the flow is, at some particular period, much more scanty than usual, and of an unnatural quality ; and then about the commencement, and sometimes even after the orgasm has passed over, the head becomes suddenly affected with pain, strong pulsation, vertigo, and epileptic fits ensue. In other examples, the catamenia altogether fail to make their appearance at the proper age, and the person becomes subject to disorders of the head at the same time, and to epileptic fits, which continue until the function of the uterine system displays itself, and often more or less severely during life.” 149.

Often there is nothing peculiar in the character of the fits of uterine epilepsy. They sometimes commence with the aura epileptica—at others, are preceded by pain in the head, pulsation of the carotids, and vertigo—not unfrequently there is no premonitory sign. The character which has appeared to our author to belong more particularly to uterine epilepsy, is the form he has termed *leipothymia*, the description of which we have already given a few pages back. Here our author details fifteen cases of uterine epilepsy, for the sake of elucidating the history, rather than the treatment, of the disease. Of these, we shall be able to notice more than one or two, as specimens.

Case. Anne Davis, ætat. 17, of sanguine temperament, was brought into the Bristol Infirmary, in a comatose state, on the 18th January, 1820. It appeared, that the catamenia suddenly disappeared about five months previously, in consequence of a severe cold. Two months after the suppression, she became affected with head-ach and giddiness, attended with shiverings. On the day of admission, these symptoms had come on with unusual violence, and increased until she became quite insensible, and had the appearance of a person in apoplexy. Twenty ounces of blood were abstracted from the arm, after which she began to recover her senses. A cathartic powder was administered. Next day, sixteen ounces of blood were taken away. A cathartic mixture, *ter in dies*. On the 20th she had quite recovered her faculties, but still complained of her head. Repeated the venesection to sixteen ounces. Our author did not see her again till the 27th, when he learnt that the catamenia had begun to flow soon after the last bleeding. They had ceased on the 26th. On the 31st, she was again attacked with headach, diarrhœa, and thirst. Venesection repeated. She was discharged cured, on the 8th, from the infirmary.” 152.

We shall give a slight sketch of the 14th case, because there is a dissection disclosing some peculiarities. The patient was a girl of slender habit, fair sanguine complexion,

tion to restore or set up the uterine function—in default of which, morbid congestion in the brain takes place, and the consequences of that state. Another division of uterine cases connected with *dysmenorrhœa*, will be spoken of hereafter.

“The practical indications are, first, to relieve the morbid determination to the head; secondly, to restore the natural determination to the uterine system: or, thirdly, if that cannot be done, to bring the constitution into a state in which the injurious effects of amenorrhœa are felt in a less degree.” 182.

One of the most important resources we possess, for the first indication, is blood-letting—the immediate effect of which, is generally relief of the pain and oppression in the head, and a subsidence of the carotid and temporal pulsations. “Sometimes the use of the lancet is speedily followed by a restoration of the catamenia.” The following observations on the effects of venesection in inflammatory affections, we shall give in the author’s own words, as we cannot abridge them without detracting from their interest.

“If a person labouring under an attack of pneumonia, hepatitis, or other inflammatory disease, is freely bled, so that either absolute syncope, or a degree of relaxation approaching to syncope, be induced, one of the following effects will commonly ensue:—First, The morbid determination to the inflamed part, or the particular state of the vessels in which the disease consisted, is entirely overcome, and the disease will be found to be removed: this event ensues most frequently when venesection has been employed within a few hours after the commencement of an inflammatory disease: or, secondly, the pain, and other signs of local inflammation, still remain in the part affected, and require other efforts to remove them: or, thirdly, when the patient recovers from his fainting state, and the pulse regains its force; or sometimes, after an interval of sleep or collapse, the disorder of the part originally affected is found to have entirely subsided, but a new morbid determination to some other part of the system is discovered, sometimes of less importance, at other times endangering life in a greater degree than the original affection: and this new disease often requires a repetition of bleeding, which, in its turn, ushers in a fresh attack in some other organ.

“It is needless to adduce particular facts as exemplifications of the last assertion, as every medical practitioner must repeatedly have witnessed such phenomena. They occur most frequently in cases of inflammation of the external parts, particularly of the joints; such as are denominated rheumatic: but they are also frequent in inflammatory disorders of a different description. If a patient recently attacked by pleurisy, which is confined to one side of the thorax, is bled until syncope supervenes, the disorder often shifts to the other side. After inflammation of the peritonæum has been suddenly relieved by bleeding, the head is often attacked. In short, the migra-

tory tendency of many inflammatory disorders is a trait extremely well known ; and it is equally well known that the change of determination is very often an immediate consequence of bleeding.

" It must therefore be allowed that evacuations of blood, sufficient, with respect to quantity, to reduce the action of the heart and the circulation, have not only this immediate effect, but have also a secondary effect, viz. they give rise to a change in the distribution of blood to various parts of the vascular system. In other words, they excite new determinations, which in general show themselves immediately after the collapse, induced by the evacuation, ceases. Now the new determinations which arise after bleeding are sometimes morbid phenomena ; sometimes the restoration of natural and healthy processes. Instances of both kinds occur in the recitals of the foregoing cases. In some instances the natural determination to the uterine system, and a flow of the catamenia, followed : in others, an attack of phlegmasia or painful affections of the joints. Either event was salutary in cases of uterine epilepsy." 183-4-5.

In order to ensure the best effects of venesection in uterine epilepsy, Dr. P. advises that the blood be taken away, while the patient is sitting up, until syncope begins to take place. No general rule can be laid down as to the repetitions of bleeding—these things must be left to the judgment of the practitioner. Our author cautions us, however, not to be deterred from persevering in the plan commenced, as long as the patient's strength will bear depletion, or the disease continues obstinate ; for relief is not to be always looked for in the first instances—on the contrary, the fits will often recur uninterruptedly till after repeated bleedings.

As an auxiliary, the *semicupium*, or *balneum*, at 96° or 98°, is useful in producing a general relaxation of the extreme vessels, and a determination of blood into the superficial arteries. It is peculiarly apt to determine to the uterine vessels. Several of the cases detailed by our author illustrate these remarks. A very hot bath, however, should not be ventured on without due caution. While the patient is in the warm bath, the back, loins, and abdomen should be rubbed with flannels ; and when put to bed, the circulation through the extreme vessels should be promoted by draughts of warm diluents. The same indication will be promoted by stimulating glysters. " An ounce of *ol. terebinth.* with an ounce of *oleum ricini*, makes an enema sufficiently powerful." Our author has no experience of blisters applied to the sacrum or pubes. The oil of turpentine, our author considers to be one of the most diffusible stimulants in the whole *Materia Medica*, and the most potent *emmenagogue*. He has ascertained by a sufficient number of experiments, that this medicine has considerable power over maniacal affection connected

with defective catamenia. From half a drachm to two drachms of the oil is to be given in an emulsion thrice a day—or two drachms may be given at one dose going to bed. The black hellebore and pulvis sabinæ are not so powerful as the turpentine. Should these means prove abortive, we must endeavour to bring the constitution into a state in which the defect of the uterine function may be productive of least injury. For this purpose, it is necessary to prevent a return of the plethoric state, by observing an antiphlogistic and attenuating regimen, exercise in the country, and open bowels.

In the next place, the effect of artificial drains by issues or setons in reducing plethora, is considerable—but they have a further efficacy in uterine epilepsy. In several of the cases detailed by our author, a new morbid determination taking place in the system, suspended or removed epilepsy, where every other remedy failed—these were, phlegmatia dolens, rheumatism, cutaneous eruptions. This consideration indicates the propriety of establishing a supplementary drain or disease, as a substitute for the natural one.

“This may be done by setons in the nape of the neck: perhaps more favourably by issues or setons on the sacrum, or above the knees. If these applications are too troublesome, an issue in one or in each arm will have a similar effect, in a certain degree. If there are any constitutional disorders which may act as drains or diversions, they should be encouraged. Of this nature are cutaneous diseases, discharges from the legs, and other local maladies.” 190.

Nature has yet another resource in reserve for uterine epilepsy—it is pregnancy. Even if this should not take place, our author has reason to think, that marriage would generally remove the disease.*

In cases of epilepsy dependent on *dysmenorrhœa*, the practice must be somewhat modified. *Moderate* bleedings, and those means which promote relaxation of the system, and a determination towards the uterus, are principally to be relied upon. The bleedings must not be carried to syncope, lest they should cause a total cessation of the menstrual discharge. They must be managed so as to produce a perceptible degree of relaxation in the pulse—the immediate effect of which is, generally, a relief of pain in the head, and a removal of the uterine constriction, the catamenial flow becoming free and natural. At the same time, the other means before described, are to be adapted to the exigencies of the case. “If the dysmenorrhœa should be invincible, much may be done to ob-

* See two curious cases of this kind related by Hoffman; *vol.* III. *p.* 21. Vol. III. No. 9.

viate its injurious effects on the habit, by constant exercise, purgatives, and artificial drains."

The sixth chapter of the work is on epileptic and maniacal cases arising from metastasis of morbid action from other structures to the brain. In pursuance of our plan, we shall adhere to the subject of epilepsy, reserving mania for our next, in which we shall introduce information from other quarters besides the work before us.

The doctrine of metastasis is as old as Hippocrates ; and the difference between the opinions of the humoralists and physicians of the present day, consists in this—that the former considered metastasis a translation of peccant *matter*—the latter, a transference of morbid *action* from one place to another.

One of the most frequent and striking examples of metastasis to the head, is that which succeeds the drying up of ulcers, or the disappearance of eruptions on the surface. All authors have recorded, and all practitioners have seen frequent instances of this kind. It is also well known, that severe affections of the brain occasionally take place, after the sudden disappearance of gouty or rheumatic inflammation of the joints, and also of the serous membranes, as of the pleura and peritoneum. Another metastasis is that of dropsical inflammation to the brain, giving rise to convulsive and maniacal affections. Several cases of epilepsy supervening on the sudden disappearance or diminution of anasarcaous effusion, are on record. Dissection, in such cases, generally discovers serous fluid in the cavities of the encephalon, and it has been supposed, that the affection depended simply on the absorption of the fluid in one place, and its deposition in the brain. We are by no means certain whether this be the case, or whether it be a new action set up in the head, the consequence of which is effusion there.

Tumours formed in any part of the body, require a particular current of fluid towards them for their growth and support. This, by its continuance, gives rise to a particular state of the constitution, that renders the system liable to suffer on the removal of the tumour, from the want of an accustomed drain. The effects of this metastasis are various :—sometimes epilepsy, sometimes mania, results. Cases in illustration of both events are given by our author, for which we refer to the work. Other examples of metastasis might be adduced, but it would be useless to enter into a more particular enumeration of varieties which lead to no important conclusions, pathological or practical.

In respect to the *treatment* of metastatic affections of the head, our author thinks that, when the accident happens in

consequence of the stopping of an habitual hæmorrhage, as piles or epistaxis, especially if the subject be young, then venesection may be ventured on as freely as in the uterine cases, treated of in a preceding chapter. The same observation applies to metastatic affections resulting from the healing of old ulcers, and also from translation of hydropic inflammation.

“ In cases of metastasis, when the primary disease has been situated in serous membranes, the disease of the encephalon probably differs considerably from that which occurs in the forms of disease above mentioned : the marks of increased vascular action, or arterial plethora, are less decided. The theory of these cases is not so well understood as to afford a safe guidance to practice ; but as far as I can venture to draw an inference from the *facts* of which I am in possession, I believe that topical bleeding, by cupping glasses or leeches, is preferable, in such instances, to venesection in the arm : the strength of vascular action in the head and neck, and the degree of heat of the scalp, as well as in the extremities, are circumstances which must be considered in directing these measures.” 239.

The same observations apply, Dr. P. thinks, to affections of the head from recessions of the exanthemata—for example, on the disappearance of measles, where large general bleedings would be improper, the circulation, in such cases, being weak and irregular. “ It is only when the general circulation is strong, and the skin generally hot, that it promises advantage.” Purging is a remedy which may safely be employed in cases of this description, and often answers the purpose of bleeding. The most important indication is to produce a new determination, or restore that which existed previously to the metastasis. The hot bath, pediluvia, frictions, blisters to parts formerly affected, irritating ointments or liniments, sinapisms, &c. &c. may be advantageously called into use.

“ Another remedy which I have found efficacious in this class of disorders is mercury ; so administered as to bring on ptyalism. In the first case reported in this chapter, the patient recovered as soon as the constitution became affected by this remedy ; and I have witnessed an equally decisive effect in other instances. I am by no means disposed to approve of the frequent, much less of the indiscriminate use of mercury, in disorders of the brain and nervous system : but in cases of the description I am now referring to, I am persuaded, by experience, that it has a peculiar efficacy.” 241.

The seventh chapter of the work before us is on epileptic affections depending on a disordered state of the intestinal canal.

In some preliminary remarks, our author observes that, affections of the nervous system arising from disorder of the digestive organs, have long been familiar to most medical

practitioners. But they are considered, in general, to arise from what is termed sympathy with the irritated portion of bowel. It is not commonly imagined, he observes, "that any inflammatory process is set up within the cranium, in consequence of the disordered state of the digestive organs; or, that organic disease of any part of the nervous system is an intermediate step between the original malady in the abdomen, and the subsequent manifestation of its effects in the state of the animal functions."

"I am persuaded, however, after a long continued attention to this subject, that the general progress of disease, where morbid affections of the intestinal canal are followed by disorder of the nervous functions, involves an intermediate affection of the cerebral and nervous fabric itself. The proofs of this opinion I cannot bring into one connected statement: they will result from the accounts of particular cases, of dissections, and from other observations, which are to be comprised in this chapter. The disease which I supposed to be produced in the brain, and other parts of the nervous system, is a state of morbid plethora in the blood-vessels belonging to that fabric. I shall not pretend to determine whether this always constitutes a degree of inflammatory affection, or sometimes amounts only to simple congestion. I have indeed before observed, that I do not know in what consists the difference between these states." 243.*

Our readers are aware, that we have all along impressed on the minds of our junior brethren, the importance of remembering that sympathetical functional disorder will, if long continued, end in organic disease, and this, we believe, is the simple meaning of Dr. Prichard's pathology. We can scarcely believe that our author wishes it to be understood, that he supposes inflammatory action to be the very first effect of sympathetic influence radiating from distant parts on the sensorium. We doubt not, indeed, that some peculiar condition of the vascular system of the brain, may be connected with this functional disorder; but we imagine that we are very far from being authorized to pronounce this condition—inflammation.

Although we are ignorant by what train or connexion this disorder supervenes on the primary affection of the intes-

* We refer to our analysis of Dr. Parry's invaluable work for precisely the same doctrine. Speaking of the cause of nervous affections, Dr. Parry remarks that—"this cause is excessive impetus of blood acting on the medullary substance of the brain, or some other part of the encephalon." 293. Indeed, we have to complain of Dr. Prichard for not more frequently noticing Dr. Parry's doctrines. We have now, however, put it out of the power of authors to slur over the sentiments of this illustrious pathologist.

tinal canal, yet it seems to be by a different process from that which subsists in the case of metastasis—in which the disorder of the new part takes the place of the old, which subsides. Our author has reason to believe that the disorder of the intestinal canal itself is much more frequently of an inflammatory nature than is generally suspected,

“In that state of the canal which gives rise to costiveness, alternating with diarrhœa, and accompanied with indigestion, flatulence, and eructations, anorexia, and nausea, transient but often acute pains in the hypochondria, livid and yellow suffusions of the skin, viscid secretions in the mouth, white furred tongue, redness of the fauces and palate, the whole train of symptoms often depend upon a low degree of chronic inflammation in the mucous membrane of the intestinal canal: and this is, perhaps, a frequent, if not an ordinary state, in cases where severe nervous disorders supervene on complaints of the stomach and bowels. In some of the following cases this was certainly the condition of the disordered parts.” 245.

We believe that the above pathology is nearly correct, excepting that we think our author loses sight too much of that state called *irritation*.

Enteric Epilepsy. Epileptic fits are sometimes obviously connected with the presence of irritating matters in the stomach and bowels; and accordingly this modification of the disease has been long recognized by medical authors. Our author thinks that epilepsy has been too often considered as an idiopathic affection of the brain, nor does he think it has ever occurred to any one to consider this disease, “in the majority of instances, symptomatic of disorder in the natural functions, or of ailments in which the brain only participates in a secondary way.”* Our author observes, that when the

* We think this observation hardly warranted after perusing the following extract from a work published four years ago, and widely circulated.

“Our attention is to be particularly directed to the organ or part which is the *common or general seat of the epileptic irritation*, and from whence, at the moment of attack, the said irritation seems to dart in an instant to the sensorium, and there, by deranging the balance of the excitement and circulation, to produce the phenomena of the disease. This seat of irritation may be, and often is, in the coverings, or even substance of the brain itself, where, however, it only *occasionally*, as in the other instances, disturbs the vital functions of this organ. *More frequently* the domicile of the mischief is at a distance—especially in the digestive organs: In this case the premonitory symptoms are clearly marked, as pain in the stomach, tension in the epigastric region—loss of appetite, &c. When from worms, the patient, during the seizure, presses the abdomen with his hand. Indeed, when

disease has its domicile at a distance from the brain, it is only to be cured by removing the primary cause, and not by the exhibition of a "set of medicines supposed to be possessed of certain anti-epileptic powers." But we may remark on this passage that, as these anti-epileptic powers of certain medicines (say for instance the argenti nitras) were found out by experience, not reasoning, it is hardly fair or prudent to reject them from our practice, because their operation cannot be rationally explained upon any of our now known principles. How do we know, in fact, whether the argenti nitras does not sometimes cure or mitigate epilepsy, by establishing a new or removing an old irritation. If lunar caustic be applied to a sound part it will cause irritation and ulceration—if to an irritable and disordered surface, it will lessen pain and irritability. Is there not ground for supposing, then, that this remedy acts on the principle so much contended for by Dr. Prichard himself?

When enteric epilepsy, though at first the result of gastric or intestinal irritation, has taken a firm hold on the system, through the influence of habit, or by the effect of disorganization, "occasioned by long continued morbid action," it then becomes a permanent malady.

"In other instances this disease may be cured by a plan of treatment directed to the removal of the morbid circumstances which occasion it. The longer the duration of the disease has been, the less prospect is there of entirely overcoming it; still, if the disorder in the abdominal functions is within the reach of medicine, the case is not, after any period of time, altogether desperate. Nature sometimes effects a cure after a patient has been many years subject to the recurrence of fits, and even after the brain has manifestly sustained much injury." 253.

It is well known that epileptic fits often occur in connexion with the presence of worms in the intestinal canal, both of children and grown persons. The tape worm, in particular, frequently induces epilepsy. The enteric form of the disease occurs at all periods of life. During dentition, when the con-

children are affected with epileptic fits, without any previous frights or other ostensible cause, and who, in the mean time, have pale complexions, dull eyes, dilated pupils, clayey stools—tumid abdomens, languid gait, &c. there is scarcely a doubt but that worms are the exciting cause.

"The biliary organ is very often the seat of the primary epileptic irritation, which is evinced by pain in the region of the liver—deranged intestinal secretions—borborygmi, and a yellowish suffusion previous or subsequent to the paroxysm. Even a morbid secretion of bile itself, as was observed by Hippocrates, will determine epilepsy." *Johnson on the Influence of the Atmosphere*, 2d Ed. p. 102-3.

stitution is much disturbed, the bowels often fall into an irregular state, the precursor of convulsive paroxysms. These disorders quickly subside under a proper regimen, but are very liable to return, when the *primæ viæ* are suffered to fall into a distempered state.

There is nothing very peculiar in the fits of enteric epilepsy—being sometimes accompanied with convulsions, at others bearing the character of leipothymic paroxysms. The symptoms of disorder in the functions of the stomach and intestinal canal are not so strongly marked in this disease as in enteric mania, but still there is a manifest deviation from the state of health. The bowels are constipated, and often require enormous doses of purgative medicines. In other cases constipation alternates with diarrhœa. The evacuations are generally of an unhealthy appearance, and display a disordered state of the gastric, intestinal, and hepatic secretions—in short, “an imperfect action of the digestive structure.” The appetite is variable—often there is an unnatural appetite approaching to pica—a characteristic of enteric epilepsy as well as mania.

“I apprehend that the pathology of this disease is very similar to that of enteric mania. The distempered state of the intestinal canal is the same in both disorders; according to the different morbid predispositions of the nervous system, the same exciting cause or irritation in a remote part of the constitution, gives rise in the brain of one person to a disease which manifests itself in maniacal impressions; and in another individual occasions a differently modified disorder in the state of the same organs, the symptoms of which are attacks of epilepsy.” 257.

Treatment. This is somewhat different from that employed in uterine and metastatic epilepsy. In the former cases our object was to alter or restore determinations of blood—in the present case our chief indication will evidently be to remove the disorder of the alimentary canal, the fundamental cause of the disease in the brain. In the mean time, it is necessary to relieve the secondary but more urgent affection of the sensorium, which is often manifestly loaded with blood. It is still more evident that we are to direct our attention to this point, when there is a constant stupor, drowsiness, headach, dilatation of the pupils, vertigo, starting from sleep, or agitating dreams. Here we are authorized to bleed generally and locally, apply cold to the shaven scalp, and blisters to the nape of the neck. While the threatening symptoms are in process of being removed or mitigated by measures of this kind, we are not to neglect the bowels—in deed, in a great many instances, our sole attention may be

directed at once to this object. If there be evidence of a loaded state of the stomach and bowels, emetics and purgatives must be given. "It is often proper, says our author, to begin by prescribing five or six grains of calomel, with one, two, or three of tartarized antimony. This mixture will often excite vomiting and purging at the same time. If necessary, it may be followed by a dose of ipecacuanha, to promote the former action." If it fail to act on the bowels, a cathartic may be given.* Our author has succeeded in obtaining relief by injections of an ounce or two of ol. terebinthinæ with an equal quantity of castor oil, mixed with gruel. The use of the warm bath promotes the relaxation of the bowels, and contributes to relieve the system in other respects.

The primæ viæ being thoroughly cleared, and the acute cerebral affections reduced, then a more continued treatment is required in the disease, considered as a chronic malady. In these protracted cases a long continued diarrhœa kept up by purgative medicines, reduces the strength of the patient, while at the same time a morbid secretion in the bowels feeds irritation of the system, and sustains the symptomatic disease. After clearing the primæ viæ therefore by calomel and other means, a steady and regular action ought to be kept up in the bowels by stimulating laxatives. The compound decoction of aloes may be given three times a day, with half a drachm of carbonate of soda. The mercurial and compound aloetic pill may be taken; or the blue pill with assafœtida and extract of colocynth, alternated with salts and senna.

Of all remedies which our author has tried in epilepsy, he found none so frequently useful as oil of turpentine. He has exhibited it in many cases of intestinal disorder, and observed that it was most serviceable when given in pretty large doses, as from half a drachm to two or three drachms three times in the day. Even in the latter quantity it can be very well borne when given in the form of an emulsion carefully prepared, by diffusing the oil, by means of honey or mucilage in some strong aromatic water. The *modus operandi* of the oil our author cannot pretend to explain, but he has found, from the experience of many hundred cases, that it very soon changes materially the state of the intestinal canal.

"It occasions moderate and regular evacuations, corrects the tendency to a frequent repetition of griping and irritating stools, and relieves, or completely removes flatulence. At the same time the

* "The combination," says Dr. Prichard, "of calomel and tartarized antimony acts more easily and speedily on the stomach than the latter salt given alone."

oil of turpentine exerts a peculiar sedative or tranquillizing power on the nervous system. It lessens irritability, the disposition to starting and convulsive twitching of the muscular fibres, and promotes sleep." 263.

If it occasion a troublesome vertigo or nausea, when taken in the day, a double dose may be given at bed-time. The best vehicle for the emulsion above alluded to, is milk—half an ounce of the former to a tea-cupful of the latter. By a persevering employment of this medicine, combined with some auxiliary measures to be noticed farther on, Dr. P. has frequently known disorders of this class relieved, and sometimes removed, which seemed at first hopeless.

Our author apprehends that the nitrate of silver has been found chiefly useful in cases of enteric epilepsy, as this medicine, as well as several other metallic salts, for instance, the sulphate and oxyde of zinc, &c. possesses a certain efficacy in many disorders of the stomach, connected with pains of the head. This may be so; but we have seen the nitrate of silver produce much benefit in epileptic subjects where there was no evidence of gastric or enteric derangement whatever. Our author's experience has not led him to place any great reliance upon this remedy, or upon any of the same class, in epilepsy—"though it has appeared to mitigate the disease in some instances, or to render the fits less frequent." In chorea he has found it the most useful of the metallic salts. It is principally in enteric epilepsy that antispasmodics have acquired reputation, as they allay many troublesome sensations and flatulencies with which the patient is oppressed. The best forms, he observes, in which they can be given, are the *spiritus ammoniæ foetidus* in camphor julep—pills of *assafœtida* with oxide of zinc—tincture of *assafœtida*—ammoniated tincture of valerian—compound galbanum pill, &c. &c. The doses should be frequently repeated. Sometimes glysters of *assafœtida* with oil of turpentine have a good effect.

Whatever class of alteratives we may employ with the view of restoring a healthy state of the gastric and intestinal secretions, their efficacy will be greatly promoted by occasional brisk purgatives—say every third or fourth day—and sometimes emetics. Warm clothing, the warm bath, and abdominal frictions, are auxiliaries. The diet, of course, is to be restricted, and all vinous and fermented liquors proscribed.

In some cases of enteric epilepsy, there is obstinate and almost indomitable torpor of the bowels. Here powerful cathartics only exhaust the excitability of the intestines, and augment the disease.

"One of the principal resources we have under these circumstances is the constant use of mild enemas, which act rather as diluents than as stimulants. A large quantity of water should be injected into the rectum every day, or twice in the day, viz. every morning and evening. Many persons prefer warm water, and obtain from the use of it a sufficient relief. In other instances cold water has been found more effectual. I attended a man about two years ago who had a variety of troublesome disorders, the effect of habitual costiveness. This person now enjoys good health, and a greater degree of vigour than he has experienced for many years. His remedy is an enema of water, which he injects always as cold as he can procure it every morning, by means of a leather bag. He first injects two quarts, which speedily excite his bowels to evacuate their contents, and he then immediately repeats the operation." 267.

Sometimes small doses of neutral salts, largely diluted, will answer in these cases, if taken early in the morning, and some walking or riding exercise used afterward. Our author has found the following formula one of the most useful aperients, where such medicines are habitually necessary:—*infus. sennæ* ℥j. *ad* ℥ij. *aquæ menthæ pip.* ℥iv. *infus. calumb.* ℥ij. *magnes. sulphat.* ℥j. *m. capiat cochl.* iij. *mane quotidie.*

There are cases of enteric epilepsy, where determinations to the head will occur in despite of all medicines directed to the intestinal canal. Here we must deplete locally, from time to time, in order to save the encephalon from the effects of plethora—and, in very urgent cases, we must open the temporal artery or jugular vein. In children, leeches are the best local evacuants. Seventeen detailed cases follow, illustrating the positions, doctrines, and practices, laid down in the text. These must be perused in the original.

Hepatic Epilepsy. It has happened to our author to observe several cases of epilepsy, in which there were evident symptoms of active inflammation or of chronic disease in some of the larger abdominal viscera, especially the liver. In these instances he also remarked that remedies adapted to relieve the disorder of the abdominal viscera, if successful, removed at the same time, or greatly alleviated the affection of the nervous system.

"From these observations it must be inferred that there is some sympathy, or connexion depending on circumstances unexplained by any principles in pathology, between that morbid state of the brain which gives rise to epilepsy, and a diseased state of the liver, and other large viscera of the abdomen."*

* "A very well marked case of epilepsy, in connexion with extensive disease of the liver, pancreas, spleen, stomach, and mesentery, is de-

Six cases are related in illustration of hepatic epilepsy, for the particulars of which we must refer to the work itself.

The ninth chapter embraces cases of cerebral disease, giving rise to epilepsy, and occasioned by the direct operation of noxious agents on the brain and nervous system. These agents are divided by our author into three classes.—1st. Mechanical injuries—2dly. Physical agents, as opium, alcohol, &c.—3dly. Violent emotions, passions, and long-continued mental anxieties. Cases exemplifying each of these causes are detailed, after which, Dr. Prichard proceeds to the consideration of the treatment proper in this class of epileptic affections.

It is reasonable to suppose that the treatment of nervous affections, arising from causes which act immediately on the brain and its appendages, is more simple, and the indications clearer, than where these disorders depend on, or are complicated with, morbid conditions of other organs and functions—the main object here, in fact, is to relieve local determinations to the head, paying due regard to the general health.

In a great majority of cases, Dr. Prichard properly observes the excessive arterial action in the head is co-existent with over-excitement of the constitution in general—the usual effect ensuing from too much stimulation by ardent spirits or other exciting causes. But it is important to bear in mind that morbid determinations to the head, as well as to other parts, often co-exist with very defective vigour in the general state of the circulation, and with an exhausted or debilitated constitution—circumstances that demand a considerable modification of the treatment necessary in the former case.

“In the latter case attention should be paid to preserving and promoting the vigour of the constitution in general, at the same time that topical evacuations, and other means of relieving congestion in the brain, are adopted.” 364.

Mental emotions are well known to produce great dis-

tailed in the 10th vol. of the *Edinburgh Medical and Surgical Journal*, by Mr. Clifton. In this case there was a severe pain from the shoulder to the elbow of each arm, which lasted an hour before the paroxysm. I do not remember to have seen this symptom mentioned by any medical author, but I once attended a patient, who laboured several months under symptoms of hydrocephalus, in whose case a violent pain in one arm, similarly situated, was a most distressing subject of complaint. On examining the body, tumours as large as a small nutmeg, and marks of inflammation, were found in the cerebellum and in the liver: the cerebral ventricles were full of serum.” 324.

turbance both in the vascular and nervous systems. Their effects, however, are more conspicuous in mania than in epilepsy, and will be more fully discussed in our next number. We must now draw our present article to a conclusion, by taking some notice of the seventh chapter on "convulsive tremor."

In some of the preceding sections our author took occasion to mention several cases in which fits of rigour or tremor seemed, on some occasions, to occupy the place of the epileptic paroxysm—particularly in those instances where the original disease had become mitigated by medicine or other means.

"I have had under my care several patients who laboured under a disease, consisting in occasional attacks of this description, in which the tremulous agitation of the muscles was so violent, and accompanied with such unpleasant internal sensations, as to occasion considerable alarm to the sufferer. These paroxysms are generally unattended with any sense of chilliness, approaching to the coldness of rigour; though sometimes the extremities, particularly the legs and feet, are cold; while the head, neck, and chest, are hot, and smoke with a profuse transpiration: the head is sometimes affected with vertigo and stupor, and sometimes with violent pain. After the paroxysm has continued some time, it subsides spontaneously, and is not followed by any accession of heat." 393.

This disease has been little noticed by authors. Tulpus and Bonetus, however, have described it. As the following case, which occurred at St. Peter's hospital, offers a good specimen of the disease, we shall insert it here.

"John Pugh, æt. 45. March 1, 1820. A carpenter, of meagre habit, low stature, dark hair. About a month ago he complained of cynanche tonsillaris; soon after he was affected in his chest; his symptoms were considered as asthmatical; his bowels were constipated. He has complained, for some time, of headach. On the 23d of February he was attacked, in the forenoon, by a violent tremor, which continued two or three hours, and then went off, after he had taken an emetic. It recurred again on the following day at the same time, and on every succeeding day about the same hour. He is now labouring under a paroxysm.

"On first looking at this man I should have supposed him to be under a severe rigour of intermittent fever; but, on a closer inspection, his affection appeared very different. The whole muscles of the upper extremities, including those connected with the ribs, clavicle, and scapula, were constantly agitated by a convulsive movement, which was wholly, or very nearly confined to them. The lower extremities were quite free. The man is perfectly conscious, and able to answer any question distinctly. His pulse is quick, and appears to be irregular; but it is very difficult to feel it on ac-

count of the constant agitation of the tendons. The skin is warm, and he does not appear to have any sensation of chilliness. The upper part of the body is in a state of profuse perspiration, and smokes. He complains of vertigo and headach.

"I ordered him to be bled, and a large orifice was made in the arm, from whence the blood flowed in a full stream. Thirty-eight ounces, avoirdupoise, had flowed, before syncope came on. When about half the quantity had flowed, the tremor became more general, and the convulsive jerking motion now occupied the glutei, which threw him up from his seat, with the action of a man sitting on a trotting horse. As soon as he became sick and fainting, the arm was tied up, and he was laid upon a bed: the tremor immediately ceased, except some slight and partial quivering.

"He was ordered—

Pulv. Cath. ʒss. statim.

Mist. Cath. 4. qq. h.

Pil. Cath. omni nocte.

5. 11. A. M. Return of the tremor.

Cold affusion.

The cold water was thrown over him, and produced an immediate cessation of the tremor. He became afterward hot.

"9. No return of the tremor.

Hyd. Subm. gr. v. o. n.

Magnes. Sulphat. o. m.

H. Salin. 4. hor.

"11. Tremor came on about six A. M. but continued only twenty minutes.

"He got rid of the tremors after this time, but fell into a state of debility.

"April 11. Appetite fails. Coughs and spits much.

Dec. Cinchon. c. Acido Sulph. ter indies.

Pil. Cath. o. n.

Mist. Aper. o. m.

"May 12. Recovered from his complaint. Has, however, a disorder in the arm, the effect of inflammation in a vein, which came on after bleeding. On account of this he is now in the surgery ward." 396.

The treatment of this disorder will be conducted on the same principles which guide us in epileptic and convulsive diseases in general. In most instances, Dr. Prichard thinks, it will be found symptomatic of uterine irregularity, or disorder of the digestive organs, and, of course, will be best managed in the manner recommended for those varieties.

Our readers will have remarked that we have obtruded very few of our own observations in the course of this analysis—a plan, we believe, too much neglected in general, but which should be very strictly pursued in *analytical* reviews—otherwise they cease to be such, and become mere vehicles

for anonymous criticism or pedantry. We may be permitted, however, to make a few, and they will be very few, commentaries on the work before us, or rather on that portion of it which we have selected for this article.

In the first place we may observe that there is little that is new, either in the arrangement, pathology, or treatment of the disease. Almost all authors who have written on the disease have described the sympathetic species, though Dr. Prichard perhaps considers this division as being much more extensive than it is represented by others. We have shown, that the pathology of the disease adopted by Dr. Prichard, is that of Dr. Parry, who published several years ago. The *systematic* treatment flows from the pathology, as a matter of course, and mainly consists in reducing and preventing cerebral plethora, as Dr. Parry and the best modern practitioners have inculcated.

We have been a little surprised to observe, that while Dr. Prichard traces a great deal of epilepsy, in females, to the uterine system, he should entirely overlook the influence of the genital organs, in producing the disease in the other sex. We are not solitary in believing, that irritation and torpor, (for extremes meet,) in this class of organs, determine the epileptic state very frequently; and, that medicines, which act with something like specific effect on these organs, are very useful items in the *methodus medendi*.

"*Les organes de la reproduction,*" says Jourdan, "*sont aussi le siège sur lequel s'exerce la cause épileptique, et d'où, comme par irradiation partent les premiers phénomènes de l'accès. Cette espèce, qu'on peut appeler génitale, est plus fréquente chez les femmes. L'onanisme a fréquemment prédisposé à cette terrible maladie, &c.*" Our author, however, may plead that he has rather stated what he has seen, than combined the experience of others, in the work under review. But in a *treatise*, it is incumbent on an author to avail himself of the observations of others, else it becomes an essay and not a *treatise*.

While we perfectly agree with our author in the systematic and rational treatment of epilepsy, we are disposed to think, that we are not so far advanced in the pathology of the disease, as to renounce the aid of certain remedies to which the term *empirical* may probably apply. The nitrate of silver, and the misletoe of the oak have unquestionably been productive of service in epilepsy—and we are not authorized to object to their use, because we cannot explain their operation. We have, within these few years, given the nitrate of silver in five cases with considerable benefit—in two, with complete success. In these two cases, the medicine was continued

for three months, and taken ultimately, in doses of eight grains a day in one, and six grains a day in the other. In some other cases, the medicine produced little or no benefit. The *tinctura lyttæ*, carried to the effect of producing strangury, was beneficial in several cases under our observation, and we have lately exhibited it in conjunction with the *argenti nitras*. We may here observe, that we have seen or heard of no case with one exception, where the *argenti nitras* produced discoloration of the skin under five or six months; and the usual precaution given by the best practitioners, now is, not to persevere longer than three months in the use of the remedy. We have recently heard that a gentleman became blue in somewhat less than three months. This must render us still more cautious than heretofore.

We part from our author, for the present, with feelings of great respect for the talent, observation, and sound judgment, every where displayed in the work which is unquestionably the best in the English language, on the subject of epileptic disorders. In our next number, we shall finish our review of the volume by taking up the important subject of maniacal affections.

IX.

Lettera di Giacomo Clark, M. D. della Universita' di Edimburgo al ch. Sig. Professore Tommasini, &c. intorno alle sue Osservazioni sulla Scuola Medico-Clinica di Edimburgo, &c. Pp. 16. Roma, 1822.

WHEN a friend from Italy put into our hands the little pamphlet whose title we have just transcribed, we did not at once recognize our old acquaintance, the author of the "*Medical Notes*," under the metamorphosis of his Italian name. Many of our readers are aware, that Dr. Clark has resided for some years past, at Rome, where, we believe, he has obtained among our rich and distinguished countrymen, that annually crowd to the "lone mother of dead empires," the unbounded confidence to which his professional skill and knowledge give him so good a claim. Amid the bustle of practice, and the manifold allurements of so attractive a scene, we are glad to perceive, that the institutions and science of his native country still retain that superior hold on his regard, which their vigorous and philosophical character ought to give them. In the present little work, he stands forward in the face of the whole Italian medical world, and in their own language, as

the defender of the English school of medicine, unjustly attacked by one of the most distinguished medical philosophers of the present day in Italy. Whether Dr. *Giacomo Clark* writes in "choice Italian" or not, we fear we are not enough versed in the niceties of that beautiful language to pronounce; but we are sure, that his foreign garb and idiom have detracted nothing from the wonted zeal, simplicity, and good sense, conspicuous in his vernacular productions.

It appears, that Professor Tommasini of Bologna, of whose name we made honourable mention in our last number, visited this country two years since, and on his return, published a report of the state of medicine, and medical education, as observed by him during his residence in Great Britain. Among other things, he gives an account of the Clinical School of Edinburgh; and it is to the exposition and correction of his mis-statements regarding this, that Dr. Clark's letter (addressed to Tommasini himself) is especially devoted. As we are disposed to believe, that the Clinical Institution of Edinburgh is but imperfectly known even in this country, and as we look upon it as the characteristic excellence of that celebrated school, we shall, for the information of our readers, translate Dr. Clark's concise account of it. We shall, however, in the first place, make one or two other extracts from his letter, as affording at once, a specimen of the degree of knowledge of our medical literature possessed by foreigners, and of the error into which one is likely to fall, in attempting to delineate the full features of a strange land from a short and hasty inspection.

"I cannot help expressing my extreme surprise," says Dr. Clark, "on reading your discourse, to find that you are unacquainted with so many of our most estimable modern authors, a knowledge of whose writings would have enabled you to form a more correct judgment respecting the actual condition of our medical literature and practice. Such are the works of Parr, Saunders, Beddoes, Willan, Currie, Parry, Armstrong (*John*), Clutterbuck, Johnson, Bateman, Jackson, Cheyne, Marcet, Thomson, Duncan, Philip (*Wilson*), Abernethy, &c. which, (not to mention others) assuredly you could have never read at the time, when you asserted, (p. 19,) that the greater number of English authors 'present little more to us than *individual cases* and *particular histories* of disease, deducing therefrom no general doctrine or principles which can serve as a guide, &c.' Had you been acquainted with our best writers, you would have found that English physicians, although deriving their practical knowledge from the observation of individual cases, (the only legitimate source of practical knowledge,) are sufficiently disposed to generalize their ideas respecting the nature of diseases, and the principles that regulate their treatment. It is indeed true, that they frequently have recourse to individual examples in illustrating

and confirming their positions, a practice, not merely advantageous, but rendered often absolutely necessary, by the very imperfection of our art, and, moreover, sanctioned by the authority of the best writers in every country. Our medical literature, it is true, was never *exclusively* devoted to any one theory of disease, but it has certainly been far from being restricted in the manner you mention. On a fuller acquaintance, you would have found that, English medicine could not only boast of being founded on the sure basis of inductive science, but that its philosophic principles afford a faithful guide in practice : most assuredly, you would *not* have found those vacillations of opinion and errors of practice which disfigure the medical history of some other nations, and which we have seen checking the progress of the art in Italy, to this very day." 6.

Dr. C. then adduces the history and fortunes of the Brunonian system in the different European countries, as placing in a clear point of view, the superior discernment of our countrymen.

The following extract from Tommasini's Discourse, seems to contain the main part of his attack on the Edinburgh School.

"Clinical instruction in Edinburgh, is limited to the mere exhibition of what the professor sees in, and prescribes for, a disease,—to the bare history of symptoms and the dictation of remedies ; a mode of proceeding, which affords no greater treasure to the student than a collection of cases, and must too frequently lead, in practice, to a servile and perilous imitation. The pupil is neither guided in his studies, nor taught to recognize or define the disease, nor permitted to try his own powers in its treatment under the eye of his teacher and his fellow students. In a word, he neither sees investigated, nor is taught himself to investigate, a disease, in every possible way, as with us in Italy. No explanation is given of the precise circumstances on which the diagnosis, prognosis, and plan of treatment are founded. Nothing is said of the doubts and difficulties which so often leave us uncertain of the truth of our diagnosis, and thereby render our practice inert ; nor are the pupils guarded from the risks of a superficial imitation, by having pointed out to them how frequently diseases apparently similar, are in truth, very different, and vice versa. In short, in England no analysis is made of diseases at the bed-side of the patients, and in the presence of the pupils, &c."

The following extracts are from Dr. Clark's reply to those charges of imperfection and inferiority to the Italian schools :—

"A completer examination of the Edinburgh school would have shown you how very different in reality the clinical institutions are from what you state them to be. If you had been present at the *Clinical Lectures* delivered there, (of the existence of which I can hardly believe you to be ignorant, although no mention of them is made in your discourse,) you would have then heard explained

the nature of each case, and the manner of "examining it in every possible way, as in Italy," pointed out—the diagnosis and prognosis exposed, the general principles of the cure developed, and the adaptation of these to particular cases determined; in short, you would have heard a full detail of every circumstance which, in the opinion of the professor, could tend to the improvement of the pupil, including (in the fatal cases) a most careful inspection of the body after death." 9.

Dr. C. proceeds to consider the question of the relative merit of clinical lectures delivered apart from, or in presence of, the patients, (the former practice being that of Edinburgh, and the latter that generally adopted in the Italian schools,) and decides, as we think most justly, in favour of the first method. In defending his alma mater from the charge of leading her sons into habits of a servile and perilous imitation of the practice of their teachers, our author strongly retorts the accusation on the very school of Tommasini himself, telling him, with an insinuation sufficiently obvious, that "in Edinburgh no medical professor can enjoy the exclusive opportunity of inculcating a favourite theory or unique practice on the minds of the hearers." "There (he continues) the professor of the practice of medicine is not venerated as the infallible oracle of the healing art, and his peculiar doctrines received as the sole rule of practice; since pupils are obliged to attend the instructions of the other professors also, to accompany them to the hospital, to observe their practice, and to compare it with that of the former."

We now proceed to Dr. C's account of the Edinburgh Clinical School; and, as it is at once extremely concise and correct, we shall translate it for the information of such of our readers (especially the juniors) as have not visited that admirable field for the acquisition of practical knowledge. And we may be allowed here to express our surprise that no clinical wards, on the Edinburgh plan, have hitherto been established in our London hospitals. The want of these is certainly a defect in our metropolitan school, which (very superior as it is to Edinburgh in many other respects) none of its other advantages can compensate. We trust, however, that this defect is not only not irremediable, but that we shall yet see it remedied; and we are well convinced that the individual who shall have the spirit to put such a scheme in effect, will have ample reasons, both public and private, for congratulating himself on its adoption.

"The annual course of clinical instruction at Edinburgh occupies nine months, three professors of the university officiating successively, each three months. Each professor, on his accession to office, selects two of the pupils most advanced in their studies as assistants. (called clerks.) one for the men's ward, the other for the

women's. These gentlemen write down the history of each case, on the entry of the patient into the ward, in a very full and distinct manner. At the professor's first visit thereafter, this history is read aloud to him at the patient's bed-side, and in the presence of the pupils, when he makes any ulterior examination of the case that may seem to him necessary—calling the attention of the students to any circumstances of the case that may deserve particular attention, but reserving for the lecture the complete exposition of the nature of the disease. At certain times in the day the journals of the physician's assistants are exhibited in public rooms in the hospital, in order that the students may have an opportunity of transcribing the preliminary histories of the cases into their private journals, to which they afterward add the daily reports from the *vivâ voce* dictation of the professor, at the bed-side of the patients.

“Beside the clinical lectures already mentioned for the consideration of the cases individually, each professor, at the termination of his course, gives a general review of the diseases treated by him during the preceding three months—explaining their general character, the effects of the various plans of treatment, and the general results obtained;—instructing, in a word, his pupils to generalize the knowledge obtained from the inspection of the individual cases, and habituating them to the conception and details of practical medicine: the whole forming a course of medical instruction so practically useful and so complete, as can hardly be met with any where else.” P. 13.

Among the innumerable blessings of peace, the advancement of the arts and sciences resulting from the free and unrestrained intercourse of nations holds a conspicuous place. This is strikingly illustrated, at this moment, in the case of our own art, by the singular dispersion of our countrymen over the continent of Europe. In France and Italy, more especially, there is hardly a great city that does not reckon a resident English physician among its inmates. The practice of these gentlemen, it is true, is in a great measure confined to the colonies of their countrymen, expatriated by fashion, established there; still the influence of their opinions and practice must necessarily extend beyond the immediate sphere of their personal exertions, and thereby affect, more or less, the indigenous science and practice of the respective countries. This will more particularly happen where the interloping practitioners are, like Dr. Clark, of a character and talent that would secure to themselves distinction even at home; and when they do not merely trust to the silent operation of their practice and opinions, displayed in their own small sphere, but, entering the field of foreign literature, boldly challenge the attention of the whole profession to the superior claims of their native country.

X.

A Treatise on the Nature and Treatment of Scrofula ; describing its Connexion with Diseases of the Spine, Joints, Eyes, Glands, &c. founded on an Essay to which the Jacksonian Prize for the Year 1818, was adjudged by the Royal College of Surgeons ; to which is added, a brief Account of the Ophthalmia, so long prevalent in Christ's Hospital. By EUSEBIUS ARTHUR LLOYD, Member of the Royal College of Surgeons in London ; Senior Surgeon to the General Dispensary, Aldersgate-street ; and late House Surgeon to St. Bartholomew's Hospital. Octavo, pp. 342. London, 1821.

HIPPOCRATES, and the primeval physicians of Greece, Italy, and Arabia, invariably recognized in scrofula, the distinctive characters of a local disease. Without alteration, this view of its nature continued to glide along the current of medical philosophy, till the close of the sixteenth century, when certain eminent pathologists in England, France, and Germany, began to promulgate doctrines assumptive of its origination from a constitutional source. These doctrines suggested perhaps by a change in the scrofulous phenomena themselves, or by the speculative efforts of genius disentangling itself from the trammels of authority and empiricism, have never ceased to be admitted or modified by those spirits which guided the march of science, from the period intermediate to its revival and that of its ascendancy in our own times.

Prefixed to Mr. Lloyd's work, is a dedication to Mr. Abernethy, in which he declares—

“ That one of the principal objects of his book is to establish in a single but important instance, the truth of those principles which Mr. A. has so long maintained concerning the dependence of local diseases on general disorder of the system, and particularly on disorders of the digestive organs, and which have now forced their way through all the opposition of prejudice and old opinion, in a manner which marks at once their inherent excellence and truth.”

Mr. Lloyd divides his treatise into two parts. In the first he treats of scrofula in general, under three sectional heads ;—of its characteristic signs—of its origin or causes—and of the curative means best adapted to remove that peculiar state of constitution on which it depends. He describes in the second, the topical effects produced by this state of constitution—the particular changes determined by it in different structures—and the local treatment of these structural

changes, under the various modifications they are known to assume.

PART I. Pathology. Mr. Lloyd is not unsuccessful in his attempts to establish, by characteristic indications, a distinction between the scrofulous state itself, and the morbid disposition, from which originates this disposition which really exists in nature, and is at all times accessible to observation. It has also been perspicuously drawn in Dr. Thomson's Lectures,* the superlative merits of which will never cease to secure to them a prominent situation in every medical library.

"The term scrofula," says the professor, "is used by medical writers in two senses, first to express the existence of a disease, which seems to possess certain distinctive characters in whatever part of the body it may appear; and, secondly, to indicate a disposition, diathesis, or state which predisposes some part or other of the body to become affected with scrofulous diseases."

This malady, whatever be the form it assumes, is as insidious in its approach as it is gradual in its developement. Various constitutions and very dissimilar textures are susceptible of the morbid actions on which it depends; and these constitutional as well as textural circumstances, in a particular manner, determine its characteristic manifestations. Children and the young suffer oftener from this disease than those of riper years. From its influence, however, no period of life or condition of sex is altogether exempted. Age, indeed, alters the predisposition to it, in different structures. In childhood and adolescence, the upper lip, the eyes, and the glandular system, are prone to become the site of scrofulous lesions: the lungs, the visceral tissues, and spongy part of bones, acquire an increased degree of liability to sustain their ravages in after-life.

Symptomatology. Systematic writers, in general, regard the scrofulous habit as being characterized by a great assemblage of distinctive symptoms. Mr. Lloyd's symptomatology of it is less comprehensive. Persons in whom it obtains, according to his observations, are distinguished by a particular delicacy and languor of countenance; their cheeks are soft, smooth, and flaccid; the lips retain a mellow redness, while the parts around the mouth are of a dull pallid hue; there is an indescribable appearance about the

* Lectures on Inflammation, p. 132.

eyes; the pupil is considerably dilated; from its vessels being impermeable by the red globules of blood, the conjunctival membrane exhibits a pearly whiteness; and the superior eyelid is unusually depressed.

Mr. Lloyd believes, and universal experience confirms the remark, that there are no legitimate grounds for regarding the white and rosy cheek, the flaxen hair, and azure eye, as symptoms indicative of a predisposition to this disease. He is fully convinced, from very extensive investigation of the subject, that persons having every variety of complexion, from the fairest European tints to the darkest Ethiopian, are alike exposed to it: and that it is only necessary to place them in circumstances favourable to its development, to have it fully established.

Etiology. Mr. Lloyd considers the origination of a scrofulous state as being, in some degree, determined by the simple or combined operation of such causes as the following:—cold and variable temperature; excessive humidity and impureness of the atmosphere; mental disquietude; inactive, luxurious, intemperate life; indigestible, defective, or insalubrious nourishment; precarious health induced by inflammatory, febrile, and nervous diseases; debility resulting from the action of mercury; contagions of various kinds; hereditary or congenital peculiarity of organization; and, in a chief degree, all those agents whose influences derange the vital, particularly the digestive functions; and, by altering the natural actions of a part, give rise to that change of structure which is termed a scrofulous disease.

According to Dr. Thomson of Edinburgh, scrofula "has been observed to occur in children who, instead of being suckled at the breast of the mother, are fed with the spoon; in others, who, though suckled at the breast, have had only a scanty allowance of old and vitiated milk; and also very frequently in those who, while young, could obtain only a watery vegetable aliment.

Among its exciting causes he likewise enumerates the impure air of crowded schools, hospitals, and manufactories; too warm clothing in bed, and too little when exposed to the air; and every thing which can tend, either more directly or more remotely to weaken the general system, or to induce debility.

Illustrative of the suddenness and certainty wherewith derangement of the alimentary functions produces local mischief, Mr. L. adduces five pathographical histories; and by their inductive testimony, regards the doctrine as being satisfactorily confirmed. We transcribe the first.

"A poor man was brought into St. Bartholomew's Hospital with a compound fracture of his leg, produced by the kick of a horse: the tibia protruded, and the parts around were much bruised, and sloughed away to a considerable extent, but the chasm became filled up with healthy granulations, and at the end of a fortnight the man was in particularly good health, free from all fever, or any species of irritation. At this time, which was on a Sunday, his friends, who lived in the country, came to see him, and brought him a large plumb-pudding, and other substantial provision, of which he ate most heartily, and in the evening was quite sick. During the night a high degree of fever came on, and towards morning he became delirious. Upon examining the wound to dress it, which was before perfectly healthy, its edges were found in a state of mortification, the granulations were all absorbed, and the tibia was exposed; so remarkable was the change which had been produced in the state of the wound, by this accidental derangement of the digestive organs, in the short space of twelve hours. On the following evening the wound was surrounded with erysipelatous inflammation, which, on the next day, was spreading so rapidly, that the limb was obliged to be amputated: this, however, had no effect in stopping the constitutional disorder, as the man died about eighteen hours after the operation."

Mr. Lloyd coincides in opinion with those who admit that scrofula is, in frequent instances, an hereditary disease. He proceeds to establish this proposition by a series of clinical observations: we submit the outline of two which were treated by Mr. Langstaff, in whose excellent museum the morbid parts are preserved.

"A woman died of consumption in the last month of her pregnancy. Her body was examined after death, as well as that of the *fœtus*. Her lungs were found full of tubercles, some of which had suppurated and destroyed much of the substance of the lung; in other respects the body was in a healthy state. The lungs of the child were found precisely in the same state as the mother's, being studded with scrofulous tubercles, some of which had suppurated. The rest of the body was in a natural state.

The next case is that of a woman, who died also of consumption, a fortnight after her confinement. The child was still born. Upon examining her lungs, they were found to be in the same state as in the preceding case, being studded with tubercles, some of which had occasioned abscesses in the substance of the lungs. In other respects her body was free from disease.

The lungs of the child were in the same state, and the kidneys also had scrofulous tubercles in them.

Constitutional Treatment. This section of Mr. L.'s work

abounds with judicious practical remarks : it also throws additional light on some of the causes which contribute to originate the disease. The author's therapeutic instructions are simple, but not on that account the less valuable. He contents himself with showing that, in the prevention and cure of scrofula, our attention must be principally directed to the digestive organs. In the prevention, by avoiding all those causes which tend to disturb their functions ; and, in the cure, by tranquillizing irritation, and restoring their healthy actions. For the attainment of these general objects, he institutes an appropriate management of clothing, diet, and medicinal agents.

Clothing. Frequent vicissitudes of climate have even been injurious to health, and, in this country, are deemed necessary to the prevalence of scrofulous affections. Mr. Lloyd proposes to counteract their effects on the animal economy, by employing means adapted to preserve the temperature of the body, as equable as possible. For this purpose he very properly advises the use of woollen clothing next the skin, and recommends the practice by two cases which we sub-join.

1st. "A young woman, of very delicate health, who had had for several years the lymphatic glands of her neck diseased and suppurating, the one after the other, and leaving ulcers difficult to heal, which were evidently of a scrofulous nature, was attacked with pain in her chest, and cough, which were very obstinate, and resisted all the usual remedies. After this, when it was believed that her cough was incurable, and that she was in a decline, she was recommended to clothe herself in flannel, which she did. From that time her cough began to get better, and in a few months was quite well, as were all the swellings and ulcers in her neck. No new medical treatment was made use of during this period, and all the medicines she took, were linctuses for her cough, and occasional doses of opening medicine. It is worthy of remark, that till she had recourse to additional clothing, she was particularly susceptible to colds, getting catarrh, sore throat, or inflamed eyes, on every trifling exposure to colder air than usual."

2d. "A little delicate boy, who had strumous affections of the glands of his neck, and symptoms of tuberculated lungs. These symptoms had existed for about two years, and during two seasons he had been at the sea-side ; but without receiving any positive benefit. He had also, during this time, made use of all the different specifics which are recommended for scrofula ; but never acquiring more than temporary relief from any of the remedies, it was determined to try the effect of warmer clothing than he was accustomed to. He was therefore clothed in flannel, and his general clothing was so proportioned as to prevent the variations in the temperature

of the air from having sensible effect on his body, under this treatment it was soon perceived that his health improved very much, and in a few months, he had entirely lost his cough, and the enlargement of the glands of his neck had also disappeared. He has, since this time; which is five years ago, remained perfectly free from the disease, and his general health has been extremely good. His diet during this time has been principally milk, but he is not debarred from eating a little meat once a day. This is the whole of the medical treatment that was adopted, and surgically, nothing was done except keeping a piece of soap plaister to the swellings of the neck."

Diet. Stimulating food and drinks of every kind are to be carefully rejected by scrofulous patients. They ought to eat no more at one time than can be easily digested; and their meals, consisting solely of good and nourishing fare, should be taken at regular intervals.

"Nothing," says Mr. Lloyd, "can be worse than living irregularly; perhaps fasting for the whole day, and then eating one immense meal, as the natural consequence of it must be to excite the whole system to a state of fever, besides the immediate bad effect that it has on the stomach and bowels. All stimulating liquors too should be avoided; and, as hunger and thirst are incompatible sensations, eating and drinking should not be indulged in at the same time, but the same regularity should be observed in the one as in the other."

These observations, it should be recollected, apply only to the simple state of a scrofulous constitution, which is not suffering from local disease. In complicated cases, wherein the local disease is extensive, and producing irritation, pain, disturbance of the natural functions, and hectic fever, experience has taught us that generous diet and stimulating drinks, are not only admissible, but useful.

Medicinal Agents. Consistently with his general views of the disease's nature, Mr. Lloyd estimates the keeping the bowels regular, and the hepatic secretion natural, as the most important point in the treatment. But it will be in vain, he emphatically adds, to attempt to improve the state of the health, or to regulate the action of the bowels by medicine, if attention to diet be not, at the same time, observed. For, says he, if the stomach be overloaded with food, no proper digestion can take place; and, if the food be of an improper quality, or in improper quantity, no medicine can act beneficially on the bowels.

When his patient is an adult, and his bowels obstinately confined, Mr. L. gives five grains of the blue pill every night, with half a pint of the compound decoction of sarsaparilla

twice in the day, and if, by a certain hour, the bowels continue unmoved, he superadds some opening medicine, and repeats it at proper intervals till moderate evacuation be produced. He pursues this plan till the alvine functions become regular, and then to prevent their relapsing into the same state, he goes on exhibiting the compound calomel pill in alterative doses of five grains, every second night, for an indefinite time.

Similar principles guide his practice in the treatment of scrofulous children. His observations on this branch of the subject are so judicious, that we shall offer no apology for transplacing them to our pages in the author's own words.

"But," he proceeds to say, "as the constitution as well as the age of children who may become affected with this disease, may be very different, it is impossible to know, at once, what medicine will be applicable to each particular case. Indeed, every one must have observed, that the same medicine may act very differently on children of even the same age : and, that what purges one violently, will have no effect on another. We should too, be very careful not to give violent purges, and we should particularly avoid large purgative doses of calomel, as I am convinced they often produce more general irritation than the evacuation they occasion from the bowels is able to relieve : and that they often so much weaken the stomach, that it is a very long time before it is able to recover its natural powers. Our object, therefore, in prescribing medicines, should be to procure a proper emptying of the bowels daily, and a healthy condition of the secretions. This, I admit, is often a difficult point to obtain, but by proper management, we may generally succeed. Any of the mild purgative medicines may be employed for this purpose, and if one does not appear to have the proper effect, we should desist from its use and substitute another ; but we may derive the greatest assistance from exhibiting alterative doses of calomel at the same time. The dose should be varied from half to one grain, according to the age and habit of the child, and repeated twice or thrice a week. Sometimes, in particular states of the stomach and bowels, it is better to combine the calomel with the purgative, and at other times, they act better given separately. The very great influence which evacuations from the bowels have over the rest of the body, cannot be denied by any impartial observers ; it is, therefore, certain, that by increasing or diminishing them, we are able to produce a decided effect on the whole, or, as I have proved before, on a particular part of the body. Thus, if there is much general irritation, or local irritation and inflammation, by increasing the intestinal evacuation, taking care, however, not to irritate the bowels, we may very much relieve both the one and the other."

When gastric acidity prevails, he employs soda, preferably to the other alkalies, in small proportions "till the cause of this morbid secretion is removed." In cases of weak stomach.

with loss of appetite, he has found cinchona, steel, the mineral acids, and other tonics, to be serviceable, though he is perfectly satisfied that they possess no specific power over the disease. When there is only a disposition to scrofula, and before the supervention of any active visceral disease, he admits that cold sea-bathing may, under certain circumstances, be made beneficial by rendering the body less susceptible of cold, and, therefore, less likely to be influenced by the vicissitudes of climate. Nevertheless, he reckons it altogether incapable of promoting the discussion of scrofulous tumours, or healing the ulcers which proceed from them. He denounces it, moreover, in all cases wherein there is reason to suspect even a disposition to tubercles of the lungs. Instructed by observation and reflection, he contends that scrofulous patients should, on no account whatever, remain longer than four, or at most, five months in the year at the sea-side. We should be inclined to abbreviate even this period; at least, to divide it by a temporary change of residence.

Mr. Lloyd's experience leads him to reject warm bathing in scrofulous complaints: it hurries respiration, quickens the pulse, and seems to injure the general health. Good air and exercise are conducive to the cure of this disease, by their tendency to promote the regular performance of the vital functions.—From the foregoing observations, of which we have endeavoured to exhibit a concise view, Mr. L. thinks the following conclusions may be fairly drawn.

1st. That scrofula is hereditary, but that the tendency to it may exist without its being called into action. 2dly. That a disposition to it may be acquired where there is no hereditary tendency. 3dly. That all those causes which tend to derange the natural actions of the body, are capable of inducing scrofula, and thus it is always a constitutional disease. 4thly. That the disease may be generally prevented by avoiding all those causes which have a direct influence in disturbing the general health. 5thly. That the disease is only to be cured by avoiding all sources of irritation, and by restoring the natural and healthy functions of the digestive organs.

PART II. When the scrofulous constitution becomes established, there is no structure nor organ of the body which may not be attacked by it, and experience teaches us, that some parts are more obnoxious to its influences than others. In the second division of his Treatise, Mr. Lloyd proposes to illustrate and confirm this doctrine, by directing our attention to the pathology and treatment of local scrofulous disease as it appears in the lymphatic and other glands.—In the female

breast,—the testicle—prostate gland,—bones,—joints,—hip-joint,—spine,—lungs,—heart,—liver,—pancreas,—spleen,—intestines,—kidneys,—brain,—and eyes. We proceed to exhibit a summary view of the manner in which these important subjects are discussed.

GLANDS.—Pathology. In a scrofulous gland, at an early stage of the affection, the permeability of its vessels remains; it is simply enlarged from thickening of its cellular structure. As the disease advances, the organ appears to have more nutrient arteries and to be redder than is natural. Gradually, it becomes wholly altered; new matter is deposited, and this sometimes has a firm consistence, resembles cheese, and when divided, shows an even, mottled, yellowish white surface. At other times, it is converted into a substance which is less firm in texture, and when incised, appears to be composed of two kinds of matter, one of these resembles curd, the other is softer, less opaque, and yellow. Minute quantities of pus are occasionally deposited in the centre of such a gland; and, sometimes, when its size is great, it contains small abscesses filled with scrofulous matter, which subsequently makes its way to the surface and gives rise to a suppurating tumour. Inflammation now seizes the integuments, and spreads to the surrounding parts: these go on to suppurate, and together with the newly-formed morbid substance, produces a large abscess, by which the gland is totally destroyed. Such is the more common progress of scrofulous inflammation in a lymphatic gland. Instances of its pursuing a different course are, however, not unfrequent: the subsequent remarks of Mr. Lloyd are worthy being transcribed.

“It sometimes happens,” says he, p. 53, “that the suppuration only takes place round this newly-formed matter of the gland, which may be seen through the aperture through which the contents of the abscess have been discharged, and between it and the sides of the abscess, you may readily pass a probe on every side. When this is the case, the healing of the wound is very tedious; but, that this is the altered substance of the gland, and not sloughing cellular substance, as has been stated, I entertain not the slightest doubt, from having examined it after it has come away in the poultice, subsequently to my enlarging the aperture, either with a knife or with caustic. This complete change in the substance of the gland does not necessarily take place: for it frequently occurs, that the gland being simply enlarged, as mentioned at first, the surrounding parts become affected with scrofulous inflammation, and matter forms, which is at length discharged through one or more ulcerated openings.”

Many times, several glands experience simultaneous tumo-

faction, and continue distinct till they have acquired a very great size. At length, they coalesce and form an immense tumour, which compresses the side of the larynx and pharynx, so as to impede respiration and deglutition. By the circumstances of two appropriate cases, Mr. Lloyd demonstrates the coalescence of glands, and the consequences that may ensue from their excessive enlargement. He then goes on to observe, that not only the lymphatic glands of the neck are liable to undergo scrofulous disorganization, but by a similar process, abscesses have been formed on the middle of the tibia, behind the inner condyle of the femur, above the inner condyle of the humerus, on the inside of the ulna near the olecranon, above the middle of that bone, above the clavicle, in the thoracic duct, in the thymus, thyroid, parotid, salivary, and inguinal glands. Sometimes he has found the cervical glands so enlarged as to form a chain passing under the chin from ear to ear, in the form of a horse's shoe. Scrofulous abscesses, moreover, may have place in every part of the body, independently of the glands, as in the chest and angles of the ribs; but, when this is the case, their suppuration is more rapid.

Whenever the thymus gland begins to enlarge from scrofulous tumefaction, it occasions most serious uneasiness.

"On the front," says Mr. Allan Burns,* "the tumour is prevented by the sternum from protruding outwardly: above the sternum, the fascia and muscles repress its growth: as it enlarges, therefore, it must press backwards on the important parts which are between it and the spine. No wonder, then, that the patient should in the end, die from suffocation and starvation. Even what food passes into the stomach, fails to nourish the body properly. The pressure of the tumour on the subclavian vein, interrupts the entrance of the chyle into the heart, and thence, the mesenteric glands are, in such cases, generally found enlarged and obstructed. In three children who had died from disease of the thymus gland, I found the lacteal glands increased in size."

When topical and internal remedies have failed of curing or mitigating the disease,

"It is practicable," adds this consummate anatomist, "to excise this tumour, and I have done it twice on the dead subject. To do this, I made an incision on the front of the neck, just above the sternum, and between the sterno-hyoid muscles, as in the operation of tracheotomy. By this cut, the rounded knob of the diseased thymus was exposed. Having done this, I next insinuated the forefinger between the gland and the adjacent parts, till the former was

* *Surgical Anatomy of the Neck and Head*, p. 9.

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intended so far as I could reach. After this, by a pair of polypi
instruments cautiously introduced between the mediastinum and the
tumour, I engaged the tumour, and wrenched it from its connexions.
This in the living subject, would be a most dangerous operation,
yet where death is otherwise inevitable, it might perhaps be war-
ranted. I found that were it cautiously executed, injury
at the large vessels might be avoided, and the sponge would easily
engage any bleeding which might take place from its own nutri-
ent arteries. In every view it is hardly possible that inflammation would be apt to
follow the operation, but this is to be little dreaded: the debilitated
state of the patient will be a sufficient security against its occurrence."

There are few histories of the thyroid gland having suffer-
ed scrophulous degeneration, on record. It is much more
frequently the seat of goitrous tumefaction. By Fodéré*
the discriminative symptoms which distinguish scrophula from
brochocele, have been perspicuously and eloquently stated
in his interesting Treatise on the Nature and Treatment of
the Thyroidal Tumour. Portal† regards the parotid and all
the salivary glands as being exposed to scrophulous engorge-
ment. Mr. Allan Burns‡ however, is of opinion that the
parotid itself is not so often the seat of morbid enlargement,
as the conglobate glands by which it is surrounded. He has
taken considerable pains to establish the impracticability of
extirpating this organ, and thinks that, those authors who
have described their performance of the operation, had done
no more than merely excise one of the glands, situated ex-
ternal to the parotid. His reasonings in confirmation of this
doctrine are so ingenious, and apparently so satisfactory, that
we should have found ourselves induced to admit the same
conclusions, had we not been aware that this would be, not
positive ignorance or falsehood of others, which, we con-
ceive, it would be more decorous to demonstrate, than to as-
sume.—We can refer our readers to six authentic details of
the operation; and, we believe, the first four of these have
hitherto been unknown to many individuals in this country.
The parotid gland, then, was excised by Burgerav,§ in
1727; by Metzel,|| in 1767; by Siebold,¶ in 1710; by

* F. E. Fodéré.—Traite du Goitre et du Cretinisme, 1800.
† A Portal.—Cours d'Anatomie Médicale, Tom. II. p. 9.
‡ Allan Burns on the Surgical Anatomy of the Head and Neck, p. 271.

§ Johannes Philippus Burgerav.—Parotis Scirrhosa multum protuberans
feliciter resecta; in Act: Academ: Natur: curiosorum, Vol. I. 1727.
|| David Franciscus Hetzel.—Extirpatio Glandule Parotidis Scirrhosæ; in
Nov: Act: Academ: Natur: curiosorum, Vol. III. 1767.
¶ Carolus Caspanus Siebold.—Parotidis Scirrhosæ feliciter extirpatæ His-
toria; in Act: Academiæ Moguntinæ, 1781.

Lacoste,* in 1806, by Palmer† in 1812, and by Carmichael‡ in 1817; and till the inadvertency, the nescience, or the mendacity of these men shall be proved, we must admit the practicability of accomplishing extirpations of this intricately situated organ.

Treatment. Considerable importance is attached by Mr. Lloyd to the treatment of scrofulous tumours. We copy his own description of the process by which he endeavours to promote the resolution.

"When," says he, p. 63, "the glands have become simply enlarged, and appear in an indolent state, the less that is done to them the better, as nothing but constitutional remedies appear to have much influence upon them in that state. It may, however, be right to bathe the part with salt and water, or any other cooling wash, to prevent the surrounding parts becoming irritated by the pressure made on them by the enlarged gland. In the more advanced stages of the disease, the treatment consists in allaying irritation by soothing applications, and by applying leeches if there is much pain. When several enlarged glands, having remained in an indolent state for sometime, suddenly begin to enlarge, are painful to the touch, and seem disposed to coalesce, although the superincumbent skin is neither discoloured nor tense, the application of leeches and cooling washes is often highly serviceable; but when they have coalesced, forming a large tumour, and the skin above is tense and discoloured, the best applications are warm emollient poultices, as they tend to take off tension, and consequently allay irritation. If, under these circumstances, it be judged necessary to apply leeches, on account of the great irritation and pain, they should not be applied to the discoloured skin covering the tumours, but rather at some little distance from it, and they may be serviceable though without this precaution they might have increased instead of diminished irritation. It often happens that when the swellings have arrived at this height an abscess forms; but it also happens that they become indolent, and the pain and tension both subside. The tumour, however, remaining undiminished, will, upon examination, be found to contain, in its upper surface, a small quantity of fluid. In this case the application of a blister, to be kept open for a few days, and repeated according to circumstances, will often promote rapid dispersion of the fluid, and indeed sometimes of the whole tumour. The appli-

* Barthelemy Lacoste.—Observation sur l'extirpation d'un glande parotide squirreuse—Rec. period. de la Soc. de Med. de Paris, tome 26th, 1806.

† Dr. Palmer, of Tamworth.—Med. Chir. Journal, vol. 1st, 1816; and Med. Chir. Rev. Vol. ii. 1819.

‡ Mr. Carmichael of Dublin.—Transac. of Irish Col. of Physicians, Vol. ii. 1819.

cation of blisters and other stimuli in glandular swellings without great discrimination, would, I believe, be attended with much mischief."

Scrofulous Ulcers. The only characteristics of a scrofulous ulcer that can be depended upon, according to Mr. Lloyd, are—its occurring after a scrofulous abscess; the peculiar dull red or purple colour of its edges: its remaining indolent for a great length of time, neither increasing nor diminishing in size, and its being attended by that particular state of health which invariably prevails in the scrofulous constitution. His treatment of such ulcers consists in "attention to the patient's diet, and to his stomach and bowels, and in soothing applications to the local disease." Several rather interesting cases are adduced in illustration of the advantages which this practice combines: of these we select one.

"A boy, six years old, of fair complexion, blue eyes, and light hair, was in Sept. 1816, brought to me with abscesses on various parts of his body; he had a bad cough and difficult respiration, tumid belly, and pallid countenance; his bowels were too open, and had been for some time irregular, and what was discharged from them was very offensive and dark-coloured; but his appetite was very good. He had every night a regular attack of hectic. As the bowels were too open, and the secretions so bad, being almost black, four grains of the hydrargyrus cum cretâ were given him every night, and continued for the first fortnight: but afterward only every other night. He was put on milk diet, being allowed a pint a day, and in every respect he was treated upon the principles which I have laid down. It was astonishing to witness how much he improved during the first six weeks under this treatment: but after this the bowels again became disordered, and the hectic and all the bad symptoms returned. He lingered in this state, getting more and more reduced, for about two months, and then died.

"Upon examining his body, the lungs were found very much diseased, and full of tubercles; and the mesenteric glands were also very much diseased. Some of them were in a state of suppuration, no vestige of the gland remaining; others were converted into a cheesy sort of substance; some were much enlarged, with a deposition of soft cheesy matter in their centre, while others were simply enlarged."

Mammary Scrofula. Scrofulous affection of the female breast seems to be modified to a certain extent, by the patient's age. In young women, it generally commences with the formation of a hard moveable tumour in some part of the organ. This tumour progressively increases in size, and coalesces with the surrounding parts which become ten-

der, inflame, suppurate, and break into small ulcerative openings, that are sometimes very difficult to heal. Occasionally also, the whole skin of the lower portion of the breast, where the abscesses are generally seated, becomes discoloured and diseased, the tumefaction augments, and a considerable degree of constitutional irritation ensues, which is seldom much relieved by general or local bleeding. Under such circumstances, Mr. Lloyd advises the insertion of a seton, and exhibits its beneficial effects in the following case.

"A young woman, aged twenty, had a small hard lump form in the under part of the breast, which gradually enlarged till it was lost in the surrounding parts; which became painful, inflamed, and formed an abscess, which discharged about three ounces of a scrofulous matter. A small ulcer was left; and the parts which were covered with a bread and water poultice became in a quiet state. Her health had been for many months in an indifferent state, and her catamenia were suppressed. The constitutional treatment that was adopted consisted principally in keeping her bowels open, and in attention to her diet.

"She, however, did not materially improve in health; and abscesses continued to form successively: the swelling of the breast rather increased, and was attended with great pain. I therefore took from her arm twelve ounces of blood, and for the first two days the pain was less, and her pulse more tranquil; but the pain again returning, I bled her again to the same extent but without benefit. Leeches were also applied repeatedly to her breast, but with the same success. She now became very impatient: I therefore made a seton under the breast, at a little distance from it, and continued the treatment that had been previously adopted. From this period, a complete change appeared to take place in her, as both her health and her breast began rapidly to amend; so that in less than two months the breast was reduced to its natural size; her catamenia re-appeared, and her health was very good; and in less than another month I removed the seton, as the ulcer had healed, and only a slight hardness remained."

Mammary scrofula, in the adult age, is generally distinguished by enlargement of all the glandular structure of the breast, which becomes preternaturally firm, while the skin and subcutaneous textures continue soft and uncoherent with the condensed parts. This state, unattended with pain or even tenderness on pressure, will sometimes continue for many months or even years, or the disease's progress will be so gradual as to be almost imperceptible, till suddenly the sound textures sustain inflammatory excitement, and are consolidated with the morbid gland. The tumour now becomes very painful; great constitutional disturbance arises; partial suppuration ensues; a small superficial abscess forms, bursts, and, through a minute orifice, discharges

an inconsiderable proportion of curdy whey-like matter. After an indefinite time, the opening will cease to discharge, and cicatrize; successive abscesses will in the same manner be formed; be attended by the same symptoms, and pursue the same course, till the tumour is progressively dissipated; and the whole breast wasted away.

"During the formation of these abscesses," says Mr. Lloyd, p. 87, "if we trace the surface of the breast with our finger, it often appears modulated, and particularly at those parts where the super-incumbent integuments have not become firmly attached to the subjacent gland; but sometimes it appears as if there are several soft places or pits, in the surface of the tumour, into which we can readily introduce the top of the finger. It is also very common, during the progress of the disease, for abscesses to form in the course of the absorbents passing to the axilla, and in the glands of the axilla itself, and even before any abscess has formed in the breast; but these are of no consequence, and always cease with the original disease."

Regulation of the patient's diet and alvine functions are here indicated: and when the constitutional disturbance is great, with a weak rapid pulse, occasional exhibitions of some neutral salt, with small doses of hyoscyamus, will be found very useful. At the same time, the application of poultices to the part is indispensable, and the decoctions of poppies and hemlock are useful adjuvants. Leeches may sometimes be employed, but their beneficial effects are uncertain. An issue, however, may be formed by enlarging with caustic the aperture through which the matter has been discharged. It prevents the formation of sinuses, expedites resolution of the tumour, and softens the remaining induration of parts.

This section is finished with some inconclusive remarks on the similarity of appearance exhibited by the scrofulous and scirrhus affection of the female breast. Mr. Lloyd states his belief of the former having been mistaken for the latter, by surgeons who are not conversant with it, and asserts that he has seen the organ "amputated for this disease, upon the supposition that it was cancer." We wish not to palliate the errors of inattentive or ignorant operators, yet we are most certain that many cases, at all times exist, in which there would be more science as well as humanity in excising the morbid parts at once, than in leaving them to be destroyed by the tedious, painful, exhausting, and uncertain process of ulcerative inflammation, by which nature struggles to regenerate their health.

TESTICULAR SCROFULA—Pathology. Children and the young are exposed to suffer scrofulous disorganization of

the testicle. One case only of this kind has occurred to Mr. Lloyd, and the disease had made considerable progress before it came under his observation. When the child, three years and a half old, was brought to him, the scrotum was distended with matter, appeared like a scrofulous abscess in any other part, and the skin was transparent. Poulitices were applied, and in a few days the integuments burst, the aperture increased, and more than half of the gland projected through the opening. It was converted into a mass of yellow scrofulous matter, which separated soon afterward, leaving the remainder of the organ enlarged and hardened. This, at the time of Mr. L.'s writing, "was rapidly diminishing, and seemed likely to entirely waste away."

When the testicle in an adult, is first attacked with scrofula, it gradually enlarges and becomes softer than it is in health. It preserves its natural form, however, and seldom attains a very great size. This stage of the disease is not usually attended with much pain, or even tenderness, on pressure; and its progress is not dissimilar from that of the same affection in an absorbent gland.

The morbid substance which constitutes this enlargement is of two kinds. In the first it is a parenchymatous matter contained in a cyst, and arises from interstitial deposition, or simple expansion of the glandular structure. In this state a small abscess forms in the substance of the testicle, and may exist for an indefinite time without inducing apparent alteration in the membranes or surface of the organ. In the second, the natural structure of the gland comes to be entirely absorbed; and a cheesy, yellowish-white or greenish yellow substance, resembling what is found in the cancelli of scrofulous bones, is deposited in its place. The coats of the testicle, however, continue for some time healthy and unaltered. The morbid deposition occasionally consists of several distinct masses, each of which is invested with a cyst.

So long as the coats of the testicle remain in their natural state, the pain, in either form of the disease, is not very severe: in the latter, however, it is greatest. When the tunics, the scrotum, and other parts inflame, and suppuration commences, the pain is sometimes excruciating; the testicle and scrotum become consolidated, and, when the enlargement is of the first kind, it feels hard, and is not very tender to the touch. In the second kind, the parts are softer and more irritable: and when small abscesses are in progress, if we trace the surface of the gland, we find soft places or pits with hardened edges, into which the point of the

finger can be pressed. This state precedes the bursting of these abscesses, through the apertures, of which a probe will readily pass into the substance of the gland. Sometimes the matter will be absorbed, and the testicle reduced to its original size, or keep dwindling away till the whole gland is destroyed.

• *Treatment.* The first stage requires suspension of the testicle in an appropriate bandage, and the application of bread poultices or cooling washes. Moderate leechings are useful in the second; and the parts should be constantly covered with bread and water poultices. When there is an increase of pain and disturbance of the general health, attended by a weak hurried pulse, sedatives combined with mild purgatives, produce very beneficial effects. Mr. Lloyd, by the following very impressive case, is solicitous of directing the attention, in a particular manner, to the re-establishment of constitutional health.

"A young man, aged twenty-three, had disease in his left testicle, which was about three times its natural size. It had been gradually enlarging for three months before his admission into the hospital, but during this time there was but little pain in it: when, however, he came into the hospital, it was more painful and tender to the touch, and he complained of pain in his loins. He was very much out of health, and had a weak and rapid pulse. The scrotum now became inflamed, and attached to the outer surface of the gland: and matter formed at this point. At this period leeches, poultices, and fomentations, were had recourse to, but without producing any effect: and as the tension and pain were great, a puncture was made at the most prominent point of swelling, and a desert spoonful of a sero-purulent matter discharged. This afforded some relief; but as the enlargement did not subside, as there was still pain, and the wound continued discharging, a seton was inserted at the upper part of the scrotum. This, however, not only did no good, but produced great swelling and inflammation of the whole scrotum, so that it was obliged to be taken out after it had been in for above a month. All the various means that have been recommended for discussion of enlargements of the testicles were now tried, without any good effect: and as the health of the patient was getting worse, he left the hospital, and went into the country. A few months after this he called on me with his health much improved; and the testicle was almost of its natural size, entirely free from pain, and the wound perfectly healed. The only remedies he made use of were bread and water poultices, and medicines to keep his bowels regular. Not long after this, however, the gland again swelled, but soon subsided, by the use of the same means; and since that he has remained well a space of nearly three years. I saw him lately in good health; and he now gains his living by driving a hackney coach."

When, in the third stages, the testicle has been partially or totally converted into a mass of caseous matter, which has come away by an external opening; or, when abscesses have formed in the body of the gland, discharged themselves externally, and produced an unhealthy state of the scrotal integuments, with sinuses difficult to heal; the principal object certainly is, to cure the local disease as expeditiously as possible. For this purpose the sinous orifices are to be enlarged, and the morbid part of the scrotum destroyed by successive applications of the caustic potash, when the sinuses and wounds will soon cicatrize, and the glandular enlargement rapidly subside.

Every surgeon conversant with the history of the science knows that Mr. Percival Pott considered all cases of chronic fleshy enlargement of the testicle, which are attended by a bad state of health, or do not readily yield to the discutient remedies usually employed, as requiring early castration. Notwithstanding the high authority of this celebrated writer, Mr. Lloyd, with becoming modesty, expresses his dissent from the opinion. He unfolds his views of the disease's nature; defines the object of his practice; adduces his pathological facts; and with decent firmness, advances the new doctrine. It is long since we ourselves taught that whatever is the effect of lymphatic exhalation, whether healthy or morbid, may be the subject of lymphatic absorption: and we find great satisfaction in admitting the sentiments of Mr. Lloyd, who, although he had done nothing else than establish the possibility of reducing the sarcocelic testicle, would have deserved well of the profession and of mankind.

- *Prostatic Scrofula.* On cutting into the prostate, Dr. Baillie has found it containing the very same white curdly matter which is peculiar to a scrofulous absorbent gland. Mr. Lloyd has not met with any instance of this kind; but several cases of sarcomatous enlargement of the gland, in which were small abscesses filled with perfect scrofulous matter, have come under his observation. The following passes considerable interest.

"A young man, aged nineteen, was brought into the hospital with retention of urine. At this time a catheter was attempted to be passed, but without success: and after general and local bleeding had been employed, the attempt was repeated, but with no better success. As, however, the urine was now continually dribbling away, though, I may observe, this produced no diminution of the tumescence of the bladder, and the pain was not so very great, the usual remedies for taking off spasm and irritation were employed; but during their trial the bladder suddenly gave way, and the urine

was extravasated into the cavity of the abdomen ; and a few hours after the patient died. Upon examination after death, the prostate gland was found of the size of a child's head, but its substance was very much of its natural density. A tumour had formed on its under part, and projected into the cavity of the bladder. It pressed so much on the sacrum, that there was scarcely any room for the passage of the feces. It had enlarged unequally at the sides of the urethra, by which, as well as by the tumour at its inferior part, obstruction was occasioned to the introduction of a catheter into the bladder, and to the direct transit of the urine. There was a false passage through the under portion of the prostate. In this case the mesenteric and the lumbar glands were enlarged ; and one of the latter was converted into a mass of complete scrofulous matter. The bladder was thickened and highly inflamed, and almost in a state of gangrene ; and a portion, of about the size of a shilling, at its upper part, had sloughed away, through which the urine had been extravasated. The death was produced by an excessive degree of peritoneal inflammation, which came on immediately after the extravasation of the urine."

This affection of the prostate gland sometimes occurs, though under a less severe form, in young men of a scrofulous habit. It is generally attended with a great deal of irritation about the urethra and neck of the bladder, and by gleet, which is much increased by sexual intercourse. It commonly gets well by tranquillizing the constitutional disturbance, making use of mild local applications, and occasionally introducing a bougie, for the purpose of removing the frequent desire of voiding urine, which so often attends this complaint.

When scrofulous abscesses form in different parts of the prostate, the matter sometimes makes its way into the bladder, near the urethral origin. Sinuses are thus left in the substance of the gland ; and through these the urine insinuates itself into the cellular texture, around the anus and perineum. This accounts for the successive production of urinary abscesses, when there is a pervious state of the urethra, and they have not been preceded by retention of urine. Their treatment involves a two-fold object—immediate relief, and an ultimate cure. The former requires puncture of the bladder ; a judicious use of the bougie will fulfil the latter intention.*

* The important divisions of our author's work, embracing *osseous articular*, and *visceral scrofula*, we must reserve for our next number. Our readers are aware that we rarely divide the analysis of a work into two articles—and never unless there be such natural or artificial divisions in the work itself as it will permit this separation without injury or inconvenience to the author or reader. Under these conditions we take leave to stop here, for the present ; and shall finish with a comprehensive review of the remaining subjects in our next.

XI.

Supplemental Review

AND

QUARTERLY PERISCOPE

OF

PRACTICAL MEDICINE, SURGERY, &c. &c.*WITH COMMENTARIES.*

Paucis libris immorari et innutriri oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.

In opening our periscopic budget for this quarter, we shall quote a passage from the second volume of LACON, recently published. It is not inapplicable to our present purpose. "An era," says the author, "is fast approaching, when no writer will be read by the great majority, save and except those, who can effect for bales of manuscript, what the hydrostatic screw performs for bales of cotton—by condensing that matter into a period, which before occupied a page."* The able author of Lacon goes on to state that, "he has attempted to make an intelligible book, capable of doing some good to that valuable class of the community who have *other* things to do, as well as to read; and who, when they snatch a few hours from their occupations to devote to literary pursuits, must necessarily prefer that book which affords them the most knowledge, and takes from them the least time."† If these observations are applicable to the community at large, they are peculiarly so to the class of medical society, whose daily avocations are of the most harrassing nature, and whose "literary pursuits" are not merely recreations that may or may not be indulged in, but essential requisites for the invigoration of their intellects and the performance of their duties. The farther we proceed, the more convinced we become of the great importance of this feature, (Quarterly Periscope,) in a periodical Journal of Medical Science. But to make it practically useful, we find it necessary to restrict it within a certain range. Were we to attempt a general view of *all* that is going on in the medical world, we should

* Lacon; or *Many Things in Few Words*, Vol. II. p. 91.

† *Ibidem*, p. 91.

then, do little more than tantalize our readers with a steril catalogue of "insubstantial pageants," that would scarcely leave a single imprint of practical precept on the mind. Of those subjects then, which we notice, we shall endeavour to convey a clear idea to our readers—and more than this, we have neither inclination to promise, nor time to perform.

It has been but too remarkable, of late years, that the taste of the present times does not lead many practitioners to contribute to the monthly medical journals, as was formerly the case. Into the causes of this change, we do not think it necessary to inquire; but we regret the fact, and we should be glad to see things come back once more into the good old channel. When a man contributes a paper or an observation to a periodical journal, his wish must naturally be that it may obtain the greatest possible publicity. As a stimulus to the said contributions, we promise to notice in our Periscope, all the more interesting papers in the original departments of our contemporaries; and we need hardly observe that, in this way, they will not want for publicity. Neither need the contributors be apprehensive of that personal and malignant criticism, which has too often disgraced the periodical press in all countries. Candid commentary will be occasionally indulged in—waspish censure never.

1. *Tic Douloureux*.* A poor woman experienced the miseries of the damned, (if indeed the inhabitants of the nether world are subject to nervous disorders) for 20 years—that is, from the age of 30 to that of 70, with tic douloureux. She was blistered, purged, salivated, leeches, carved from ear to ear, where there were nerves, and we had almost said, where there were no nerves; poisoned with arsenic, greased with belladonna, conium, tar-varnish and soap-liniment—narcotized with opium—carbonized with iron-rust—edentified by the tooth-drawer—and all with scarcely a mitigation of her dreadful sufferings! At length, upon minute investigation, it appeared, that the alvine evacuations had long been in an unhealthy state—"sometimes scanty, dark-coloured, and scybalous—at others, profuse, acrid, and mottled—her appetite either voracious or the reverse—her tongue furred—pulse feeble and quick—skin alternately affected with chills and hot flushes—her nights tormenting, and her days but little better." She was first put upon the constant use of the mildest aperients until the evacuations were improved, when a strong decoction of cinchona infused upon quassia, was regularly taken in as full a dose as the stomach would admit, exhibiting, at the same time, a grain and a half of pure opium twice a day, constipation being guarded against by sulphate of magnesia. In this way, some ground was gained; but still the patient's sufferings were great. It was, therefore, determined again to have recourse to arsenic, be-

ginning with doses of three drops of the arsenical solution, and gradually increasing it to twelve drops thrice a day, omitting the opium, except when severe paroxysms occurred. When arrived at nine drops, she was better, and expressed confidence in the plan. At the end of a month, being free from pain, and the system being evidently under the influence of arsenic, its further use was discontinued *gradatim*. She continued well for several weeks, until the bowels again became irregular. Then a ptyalismic soreness attacked the mouth. Twitchings soon followed—and lastly, a bearable degree of the old evil. But, on regulating the bowels and returning to the solution, all was speedily corrected, and the medicine a second time left off. Three months afterward, the bowels were much affected with diarrhœa; but no shocks of the old misery returned. She is now in good health and spirits. Long may she remain so, pray we! But we have seen and known several instances of this deceitful remission in *tic douloureux*, and, therefore, we are doubtful of cures till many months have established their solidity.

We have long observed that, although *violent pain* of a part generally manifests itself in that part; yet, *protracted irritation* of a nervous structure, more usually shows itself at a distance—and that, sometimes, with excruciating agony. *Tic douloureux* exemplifies this remark. How rarely is the cause of the pain seated in the nerve which expresses it! The splanchnic nerves being devoid of *common sensibility*, seem, very generally, to manifest their irritation through the medium of one of the common cranial or spinal nerves. Many of our readers may remember some notice which we published, in the 7th No. of our last, or Quarterly Series, (January, 1820,) of a gentleman afflicted with dreadful *tic douloureux* in the ankle. We lost sight of him for a considerable time after prescribing gentle and mild aperients, with a slight mercurial alterative, (four grains of the blue pill and four of rhubarb,) twice a week. We directed him, after persevering in this plan for a good while, to take five grains of the oxyde of bismuth three times a day, for two, three, or four weeks. We met him in the street about a fortnight ago, in comparatively good health. His old enemy now troubled him but seldom, and then with greatly mitigated violence. He still persevered with gentle aperients, and occasionally the blue pill.

In a conversation which we lately had with Sir Henry Hallford, on the subject of this complaint, that experienced physician mentioned several remarkable cases, many of them in high life, where it ultimately turned out, that some *bone* was diseased and kept up this sympathetic irritation in the fifth pair of nerves. This hint ought to be borne in mind, and may induce medical men to make particular inquiries of their patients whether they have had falls or other accidents that might be likely to injure some part of the bony structure, or render it carious. One of the cases mentioned by Sir Henry Hallford, was that of an officer who had lost a limb, and afterward became affected with neuralgia facialis, which nothing could make an impression on. At length, a piece of bone exfoliated from the stump, and the neuralgia disappeared.

2. *Cephalitis*.* Dr. Blicke, a zealous practitioner, has related an interesting case of inflammation of the brain, with disorganization of the corpora striata, and lastly, effusion of blood. The patient was an unmarried lady, 33 years of age, who had laboured for some years, under, what were termed, dyspeptic and bilious complaints; but without any very manifest advantage from medicine. On the 21st November, Dr. Blicke was called to the patient, and found her complaining of great headach, attended with a train of dyspeptic symptoms. The pulse was 120, small, contracted, and weak. Venesection was proposed, but not acceded to. Regulated diet, alteratives, and enemata were prescribed: and under this treatment, the patient apparently got rid, not only of the headach, but of all the dyspeptic symptoms. On the 8th December, she complained of sore mouth—a crop of aphthæ appeared—and the bowels evinced an affection of the same kind, pervading their internal surface. These symptoms yielded to bark, cordial diet, and warm laxatives. At this time, however, Dr. Blicke perceived a quickness in her answers, attended with unusual irritability. Notwithstanding the use of aperient medicines, local evacuations, saline mixtures with antimony, and gentle sedatives, this irritability increased, the celerity of the pulse was on the advance—and her nights were restless. Dr. W. Philip met Dr. Blicke in consultation; at which time the patient was incoherent—the tongue red and glairy, with fur towards the centre—pulse 130 and small—slight pain and weight in the head—stools dark and offensive. Leeches were again applied to the forehead—saline mixture with hyoscyamus internally. She died that night, being about the 20th December.

Dissection. A small clot of blood was found between the dura mater and tunica arachnoidea, over the right and posterior lobe of the cerebrum—about an ounce of apparently arterial blood rested on the tentorium. The effusion could not be traced to any evident rupture of a blood-vessel. There were a few opake spots in the arachnoid—and on the top of the left hemisphere there was a piece of coagulable lymph, the size of a shilling. The sectio ovalis exhibited those numerous red points usually seen in inflammation of the brain. The lateral ventricles were somewhat distended with a reddish turbid serum. The right corpus striatum was harder than usual, “and had evidently a scrofulous appearance, with a cheese-like feel.” Here a small excrescence, about the size of a very large pea, exhibited an apparent ulceration in its centre. The left corpus striatum was softer than usual, “and on cutting into it, an abscess was perceived, containing a small quantity of pus.” The villous coat of the stomach, duodenum, and jejunum, was highly vascular. The pylorus was considerably constricted and indurated.

This case shows the obscurity, treachery, and fatality, of affections of the brain. The subject will undergo ample discussion in our next number.

3. *Fracture of the Patella.** We were rather surprised to find Mr. Fielding remark that *transverse* fractures of the patella are of rare occurrence, when compared with *longitudinal* fractures. We believe that, in all cases where the fracture occurs from the action of muscles, it will be found to be transverse, while in accidents *ab externo*, it may be transverse or longitudinal according to circumstances. Be this as it may, our author advocates the practice of effecting an *osseous* union, if possible. Dupuytren advocated the same practice some years ago, and thought it possible to effect the bony union by elevating the trunk of the body, and then raising the heel of the injured limb to a certain angle with the pelvis. Mr. Wilson, also, in his late work, observes, that in the collection of Dr. W. Hunter, there was one well marked instance of bony union in transverse fracture of the patella, and that he has seen other instances in the dead body of its having occurred. Professor Sheldon has recommended the patient to be placed on either side, with the hip bent, and the knee a little bent also—the degree of inflexion of the hip to be equal to the bringing down the superior portion of the patella to unite with the inferior—a mode of practice which, he says, has produced a perfect bony union of the fractured patella. As the case on which this little pamphlet is founded, will occupy but a small space in our pages, we shall give it in the author's own words.

Case. “Mrs. H. æt. 35, a tall well proportioned woman, on the 15th Nov. 1820, lifting a heavy basket while in the erect position—her left knee suddenly gave way and she fell to the ground. Upon visiting her immediately afterward, it was evident that the left Patella was fractured transversely near its middle. The ends of the fractured bone were above an inch asunder. She was put to bed upon a hair mattress—the trunk and shoulders were well elevated. When the affected limb was placed horizontally, the ends of the fractured Patella remained about the same distance from each other as before.† The heel was now gradually elevated by my son, who was my assistant at the time, until the fractured portions were brought into close apposition. In this situation they were secured by straps of adhesive plaster put three parts round the limb, above and below the Patella, by bandage passed *moderately tight* above and below the knee in the ordinary way. A splint about twelve inches long was placed under the ham and slightly secured by bandage. The elevated position of the heel was strictly preserved—the whole limb was thus placed upon an inclined plane from the heel to the hip—the heel being the highest. The Patella being left nearly uncovered, it was easy now to feel that the fractured bone was in exact contact. The knee was kept moist by a cold lotion. No great pain and very

* Case of Transverse Fracture of the Patella, &c. By Mr. George Fielding-Octavo, sewed, 1822.

† We tried the position recommended by Professor Sheldon, but did not succeed in bringing the fractured bone into contact by that plan.

little swelling ensued. The chief inconvenience which the patient experienced was from the stretching of the flexor muscles, she was however perfectly manageable and preserved her position with the utmost care, from an apprehension that eventual lameness might ensue from the injury, if by any unguarded motion the fractured bone should be displaced, and the cure rendered imperfect.

"At the end of a fortnight the bandages were replaced. It was then clear, that the fractured ends of the bone were in contact, from the tumefaction upon the Patella, and from the exact situation of the fracture being no longer distinguishable.

"On removing the bandages at the end of a month, the bone was found to be firmly united, without any intervening ligament whatever.—Only a small hard line a little elevated was discoverable in the course of the fracture. The heel was now brought down to a horizontal position—the shoulders were lowered—the splint and a bandage loosely applied were kept on at the request of the patient a week longer—and gentle passive motion employed every day :—This woman left her room before the end of the sixth week. Diligent friction and frequent passive motion of the joint were necessary for some time. The flexibility of the joint and the power of the limb were gradually restored, and the patient now enjoys the use of the limb in every respect as perfectly as before the accident." 12.

We think Mr. Fielding's pamphlet would have been better as an article in some periodical journal, than as a separate publication. But, as the main facts, and the case itself, will now receive a wide enough circulation, Mr. Fielding's object will be completely attained.



4. *Dislocated Thigh Bone.** Mr. Cornish of Falmouth, has related a case of this kind, which may induce hopes of reduction at a later period than is usually supposed within the reach of cure. The patient was a seaman, first treated at St. Thomas's Hospital for fracture of the neck of the thigh bone, and discharged with the assurance that the limb would be useless for life. He was afterward admitted into Guy's Hospital, when Sir Astley Cooper pronounced it dislocation, and tried all means of reduction without effect. He was therefore dismissed as an incurable cripple. About twelve months after the accident, viz. in 1813, he presented himself before Mr. Cornish, at the Falmouth Dispensary, on crutches, and gave the foregoing account.

"On examining him," says Mr. Cornish, "I found the injured limb about two inches and a half shorter than the other, entirely useless, producing great pain on putting it to the ground, and the knee and foot turned inwards. There was considerable distortion about the joint, and the head of the bone appeared to have formed a socket

* Med. Repository, March, 1822.

for itself on the dorsum ilii. In short, he had every diagnostic symptom of the dislocation upwards, which Sir A. Cooper has so accurately marked in his valuable essay on this subject. In consequence of the duration of the accident, and the failure of the attempts at reduction under the skilful management of Sir A. Cooper, his case was considered irremediable, and nothing was done for him. In March, 1818, I met the man walking without the least degree of lameness, carrying a heavy basket on each arm. On satisfying myself that he was the patient I had examined at the Dispensary, and on inquiring into the cause of his cure, he informed me, that, in the summer of 1817, five years after the accident, whilst on a passage from Falmouth to Plymouth in a little coasting vessel, the ship made a lurch, which knocked him down. At the moment he fell, he heard a loud crack in his hip; and, from that time, he put aside his crutches, and perfectly recovered the use of his limb. "The man is now doing duty as an able seaman on board a ship which trades from this port to London." 201.

Mr. Cornish saw Sir Astley Cooper reduce a dislocation of the hip-joint of six months standing, which he heard Sir A. say was the most protracted case in which he had had success.

5. *Traumatic Tetanus cured.** Messrs. Mercier and Parant, of Quebec, have recently encountered a case of this kind, in a man 50 years of age, who, some days after being wounded in the foot by a large nail, became affected with opisthotonos. Our authors bled *ad deliquium*, and exhibited strong mercurial and other purgatives. The venesection was several times repeated, and the warm bath was employed. The patient recovered. It may be proper to state that the wound was re-opened by our authors when called in, and that burning spirits were applied to it to keep it open afterward. Great difficulty was experienced in producing purgation.

6. *Nervous Paralysis.†* We are very far from agreeing with M. Fouquier in the propriety of the name given to the disease in question, and our reasons will be seen as we proceed in the details of the case, which is an important one.

"A young woman, 19 years of age, very stout, of full sanguineous habit, with regular but *scanty* menstruation, experienced, on the 27th November, a loss of strength in the lower extremities, shortly after which the upper limbs also lost their power of voluntary motion. At the same time she felt vertigo, and noise in her ears; the

* Med. and Phys. Journal, Dec. 1821.

† Paralyse Nerveuse. Par M. Fouquier.—*Annuaire Med. Chir.*

intellect, however, remaining unaffected. Leeches were applied to the anus and to the neck. On the 1st December she entered La Charité; and on the 2d, presented the following phenomena:—total loss of voluntary motion in the lower extremities, and partial loss in the upper:—sensitivity unaffected in either. The patient was perfectly collected, and rendered an exact account of herself. She complained of dimness of vision, and tinnitus aurium. Her countenance was flushed, and a little tumid—the pupils dilated—the left angle of the mouth drawn a little backwards and upwards—the right in a contrary direction—her tongue inclined to the left when put out. The pulse was full and strong, but not quickened in number. All the signs of plethora being united in this girl, M. Fouquier ordered the jugular vein to be opened, but the quantity of blood drawn is not specified. Lemonade and cream of tartar for drink. 3d. Dec. Countenance still flushed—the distortion about the mouth less striking—considerably more power in the upper extremities—the lower remained motionless—tinnitus aurium. Another bleeding from the arm; but the quantity and effect on the system not stated. 4th. Less power in the arms than yesterday—breathing difficult—pulse accelerated. Some evacuations provoked by an emetico-cathartic draught—a blister to the nucha—patient died in the evening.

“*Dissection.* The exterior vessels of the brain, and those of the plexus choroides, were full of blood—and blood appeared in numerous points of the brain at each cut of the scalpel. The substance of the brain itself was firm. No extravasation in the ventricles or in any part of the head or spinal canal.” 376.

In the first number of this series, page 10, we made some observations on this case, and showed that there were unequivocal marks of general compression of the brain, which often led to the most fatal species of apoplexy and paralysis, without any extravasation of blood beyond the parietes of the vessels. To M. Fouquier's question then—“*La plénitude des vaisseaux sanguins du cerveau est-elle la seule cause de cette paralysie générale et de la mort?*” We answer yes; and we consider it by far the best and the safest conclusion to draw, whether we look to pathology or practice. The inert treatment in this case is a pretty significant commentary on the doctrine of “*nervous* apoplexy and paralysis,” so commonly in the mouths of continental physicians.

7. *Puncturing Anasarcaous Limbs.** We confess that we were not a little amused by this elaborate effusion of “a member of the Royal College of Surgeons,” who, with some naiveté, believes that the measure here recommended will “prove itself to be of far greater utility in evacuating the fluid diffused through the cellular tissue of the body, than any eulogium he can bestow in favour of its restora-

* Med. and Phys. Journal, No. 279.

tion." If indeed it have not infinitely more effect than an *eulogium* in removing dropsical fluids, we fear its restoration is hopeless! The facts detailed in support of the measure are in the form of a *supposition*. "Suppose I were called to A. B. &c." we shall not therefore analyse this supposed case of "anasarca of the lower half of the body, in consequence of *palpitation* of the heart," because we believe that no such case ever existed. There is a passage at page 363, which augurs but little of the great success attending this puncturing of anasarcaous legs. "It has *often*," says he, "struck me with utter surprise at finding patients dead a few days after this operation was resorted to—patients who had not the appearance of so immediately dying, at the time it was performed." This led our author "into many *endless* difficulties," which, however, in the next line proved *not* to be endless, for, like a ship coming to an anchor, he dexterously "extricated himself by *bringing up* to the following conclusions." These conclusions were, that the said sudden deaths "were attributable to the removal of the accumulation of the lymph, which, in the relaxed state of the system at this time, supported the circulation by means of its pressure, &c." For our own parts we would humbly hint that this honest gentleman need not accuse himself of the death of these patients for not having applied a bandage after the scarifications. The causes that produced the œdema of the lower extremities were far more likely to induce sudden death than the scarifications. After puncturing and bandaging, he knows of no medicine better to make a trial of "than fl. ʒj. of the tincture of digitalis, in fl. ʒiij. of the spiritus ætheris nitrici." If our author means this for one dose, there is *rather* too much of the digitalis. If he means the usual dose of digitalis to be given from the above mixture, then the quantity of spir. ætheris nitrici in each dose will avail nothing. We are sorry to see papers of the above description so carelessly sent forth to the world. Such papers deserve gentle censure.

8. *Phthisis*.* Dr. Carson's ideas respecting the circulation of the blood, and the elasticity, or, as he terms it, *resiliency* of the lungs, as an agent in that mysterious process, have long been before the public. He has lately *proposed* the application of his theory to practice. Considering, and doubtless with justice, that the lungs are at all times in a forced state of dilatation, (we mean while capable of respiration,) he attributes to this circumstance the difficulty of healing any lesion in them. And as experiments on animals, and accidents in man, have proved that air may be admitted into one side of the chest without much danger, Dr. Carson proposes that the operation be performed in cases of phthisis, in order that the lung of the side diseased may be rendered quiescent, and thus the abscess have time to heal.

* *Essays, Physiological and Practical.* By Dr. Carson, of Liverpool.

We are sorry that we cannot go along with Dr. Carson in this proposal, nor at all agree with him in the propriety of it. In the first place, we are far from believing that confirmed phthisis consists merely in a common abscess of the lungs. The tubercular state which so long precedes the discharge of purulent matter by expectoration—the repeated inflammatory processes which have occurred—the adhesions and other lesions which take place in the course of the disease, all combine to bring the respiratory organ into a state which could not be bettered, and would almost to a certainty be rendered worse by the operation of admitting air into the thoracic cavity.

In the second place, we believe that puncture of the pleura would very seldom lead to collapse of the lung in confirmed or purulent phthisis, on account of the adhesions which are so very generally found in that stage of the disease. In the third place, how could we be certain of the side where the disease is situated, even with the aid of percussion and auscultation? How seldom, indeed, do we find the disease confined to one lung in phthisis. And after all, even if collapse of the lung did take place, would that enable us to heal a scrofulous abscess in the chest, when we find so much difficulty in healing a similar one on any external part, however easy and quiet we keep that part? In fine, we cannot help feeling some degree of surprise that a physician of such talent and sense as Dr. Carson evidently possesses, should broach so wild, not to say dangerous, a procedure in this melancholy disease.

9. *Yellow Fever.** A solitary rustic “pent up in *UTICA*”—not Cato’s *UTICA*, but a *UTICA* in the back woods of America, has published a paper in the “Plough Boy,” a transatlantic periodical, which is republished in our respected cotemporary of the north, and contains, in our humble opinion, more rational and just doctrines than some of those propounded by certain self-supposed *scavans* of Europe. Thirty-five years’ observation and reflection induce Mr. Coventry to believe that yellow fever is of local origin—“depends on vegetable putrefaction, and in that short stage which generally attends the fever, is not contagious; but if protracted, and assuming a typhoid shape, (as he believes both bilious and inflammatory fevers may and often do,) *the patient may generate an atmosphere around him which, without due care, may induce an indisposition in the attendants.*” But, says this judicious observer, “remove the patient to a healthy and elevated situation—keep him clean, and well aired, and I should expect no more danger from this disease than from a tertian intermittent.” Our readers are aware that these are the doctrines long advocated in this Journal.

* Mr. Coventry.—Ed. Journal, No. 71.

10. *Pulmonary Disease*.* Baglivi's remark on the great difficulty of distinguishing the various diseases of the lungs must have been forced on the mind of every person who goes through even a very moderate share of practice. The following case is one of those that are not a little puzzling.

"Augustine Hemon, a female, 36 years of age, of feeble constitution, and very nervous temperament, entered La Charité, first time, in November 1814, with all the appearances of peritonitis, and went out convalescent in the succeeding February. She experienced, however, at her departure, shooting pains in the thighs, and dull pains in the abdomen, with bad digestion, and occasionally vomitings. From this time till her re-entry on the 11th July, Hemon experienced sharp and frequent pains in the loins, region of the uterus, and head. She had troublesome cough, and an habitual constipation was changed to a diarrhœa, which had lasted six weeks. There was œdema of the ankles—flushings of the face, pain in the nipples, heat in making water, shortness of breath, especially in going up stairs. In the month of April, she had experienced shiverings, succeeded by well-marked pyrexia and perspiration in the evenings. On entering the hospital on the 11th of April, there was considerable emaciation, with pains in the head, tinnitus aurium, troubled sleep, inability to lie on her back or left side, frequent startings in the night, breathing short, and interrupted by sharp thoracic pains, so as to be threatened sometimes with suffocation. The cough was not very severe; and came on in paroxysms, with scanty and difficult expectoration of mucus, sometimes streaked with black blood. Muscular motion was attended with great anxiety and tendency to syncope. She felt shooting pain in the region of the heart extending to the spine, with sense of great oppression at the pit of the stomach, and tenderness on pressure in both hypochondria. Constipation now had succeeded diarrhœa, with sometimes a discharge of blood from the rectum. Skin was hot, and fever pretty constant, with morning perspirations. Emaciation now made rapid strides. The dyspnœa and anxiety increased daily. She was bled, but this measure produced no relief; and the same want of success attended the administration of antiphlogistic, antispasmodic, and revulsive remedies. The patient died at the end of three weeks from her entering the hospital.

"On dissection, the pleura, heart, pericardium, peritoneum, and all the abdominal viscera were found perfectly healthy. But the lungs were observed to be filled with small vesiculo-cartilaginous bodies, the size of millet seed, which, however, did not prevent the intermediate parenchymatous structure from being perfectly permeable by the air, and crepitous. The mucous membrane at the lower extremity of the œsophagus was red, and covered with albuminous filaments." P. 574.

* *Dyspnœe Nerveuse febrile, et Degeneration Vesiculo-Cartilagineuse du Tissu Pulmonaire.* Par M. Fouquier. *Annuaire Med. Chir.*

Such, says M. Fouquier, was the history of a disease which presented, during life, the phenomena of various phlegmasiæ; "but which were merely nervous." Death could not, he thinks, have been caused by the pulmonary degeneration of structure. "Was this painful and promptly fatal dyspnœa to be attributed to asthma?" We cannot but attribute the functional disorder in the chest and various other parts of the body to the structural change in the lungs, notwithstanding the contrary opinion of M. Fouquier. The respiratory function, and especially sanguification, could not be otherwise than materially molested by such a state of the pulmonary structure; and the influence of such molestation on the various other functions of the system may be readily appreciated.

11. Oil of Croton-Tiglium. This medicine, we have every reason to believe, will prove a valuable addition to our materia medica. Mr. Conwell, lately returned from India, has brought thirty or forty quart bottles of the genuine oil with him, and therefore there will be an ample supply in the market. We believe he means to bring it under a stamp, and then every one may be sure of having the unadulterated substance.

We have had some opportunities of administering this remedy, and we have seen many medical men who have used it on a large scale. It certainly does produce nausea in several instances; but we have no doubt that means will be found to correct this quality of the oil. Dr. Nimmo of Glasgow has published some chymical and therapeutical observations, in the April number of the Royal Institution Journal, on the composition and qualities of the seeds of the croton-tiglium, from which we shall extract a few particulars.

Having procured a very small quantity of the oil, (12 drops) he poured on it two drachms of alcohol, which produced a partial solution. Pouring this off, two drachms more of alcohol were added, by which an additional portion was dissolved. A third quantity seemed to have no effect. There remained an oily-looking substance, equal to somewhat more than a third of the original oil.

The alcohol solution exhibited the characteristic acrimony of the oil—the undissolved portion had none whatever. The solution he considers as preferable to the entire oil, obviating the following objections—namely, the difference of dose in consequence of the inequality in the thickness of the lips of phials—the greater or less degree of viscosity in the oil at different temperatures—and the difficulty of apportioning the dose to difference of age or constitutional susceptibility to the action of the ordinary purgatives. In administering the alcoholic solution in doses relative to the number of drops decomposed, the same effects were produced as have been attributed to the entire oil.

Dr. Nimmo has made a great many analytical experiments on the seeds and kernels of the croton, extracting from the latter an oil

equal, if not superior to that prepared in India. But as the original oil is now plentiful in the market, we shall not stop to notice these chymical analyses. Dr. Nimmo recommends the alcoholic solution of the oil to be so prepared, that half a drachm of it may contain a drop. It may then be administered in the following manner :—*R.* Alcohol. croton. zss. syrapi simplicis, mucilag. accacæ aa ʒij. aq. distillat. ʒss. m. ft. haustus. “After swallowing a little milk, take the draught very quickly, and wash it down with repeated quantities of the same diluent.” He has administered this remedy in more than one hundred instances, and to some patients many times. In not more than three or four cases was vomiting produced—and that not in a violent degree—in not many was nausea felt—in all cases purging was induced in a space of time between half an hour and three hours after taking the medicine—the purgative effects were generally moderate, and rarely accompanied by griping. He attributes these steady and quiet effects to “the instantaneous and equable diffusion of the active principle of the croton over the inner coat of the stomach and abdominal viscera, when the above formula was employed.” Whereas, he observes, it must unavoidably happen that the oil, taken merely mixed with any fluid ; made up into pills with any substance ; or diffused with sugar or starch, may, at times, be applied in a concentrated form to a particular part of the stomach or intestines, and excite nausea and vomiting in the one case, and spasmodic action, with pain and hypercatharsis, in the other.

Among the cases which Dr. N. had occasion to treat, was a lady, who, for the cure of abdominal dropsy, had undergone a course of mercury, and used diuretic medicines of the most powerful kind, without effect. She was rapidly sinking under an accumulation of the dropsical fluid, with a total loss of appetite and strength. The alcoholic solution of the croton was administered, at first cautiously, and afterward in augmented doses, so as to cause three or four evacuations daily from the bowels, with the most beneficial consequences. By augmenting the appetite and strength, and by the discharge of watery stools, the size of the abdomen was soon reduced. After two weeks’ use the stomach became irritable, and the croton was suspended. The complaint showed strong symptoms of returning—diuretics again failed ; and again recourse was had to the croton combined with opiates and aromatics. By this the cure was effected.

Our author found the croton a powerful auxiliary to opium in the cure of delirium tremens. “In all cases in which there is a superfluity of the secretion of bile regurgitating into the stomach, it is of service, unless the medicine itself be rejected by vomiting.” In the removal of jaundice from obstruction or spasms in the bowels, it proved most beneficial. “In a case of excessive corpulence, with the most alarming symptoms of determination to the head, amounting at times almost to apoplexy, a few doses of the solution produced the most signal benefit ; and, without having had occasion to let blood, every symptom was removed which could have been expected from venesection.”

We hope the attention of the faculty will be directed more strongly than ever to this powerful medicine. We think it will prove a valuable adjunct to other purgative substances, when their operation is wished to be quickened. We have advantageously combined it, of late, with aloes, quicksilver pill and squill, in two cases of dropsy; and in three or four other cases we have observed its power of increasing the action of the kidneys.

12. *Bath Waters.** An anonymous writer in the *Journal of Science* deplores, in very feeling terms, the neglect into which the once celebrated waters of Bath have now fallen. He attributes the public depreciation of these waters, in a great measure, to the writings and opinions of the late Dr. Parry. This anonymous writer makes Dr. Parry to state that all diseases, *without exception*, consist "either in absolute or relative excess of momentum, impetus, or determination of blood in some portion of the arterial system." Now our readers have only to turn to page 36 of this volume to be convinced that this anonymous critic (like many critics of the present day) never read the work he censures. True it is, that Dr. Parry (as well as every other observant physician) traces the majority—the great majority of diseases, to partial or general increase of circulation; but he does not make this a universal law in pathology. We have noticed in our review of his work several of those diseases which that eminent and enlightened pathologist attributed to a state the reverse of what is quoted above.

Mr. Abernethy is next assailed, and the "deranged digestive organs" ridiculed, like the vascular doctrines of Dr. Parry.† The anonymous writer is somewhat more happy in his hits at a celebrated medical surgeon in Bath, whose practice forms a kind of antithesis to the old Bath-water courses. Instead of pouring down fluids by the mouth, this gentleman exhibits solids *a tergo*—that is, by the tail—a *fundamental* kind of practice which the writer ap-

* Mr. Brande's *Journal*, No. XXV.

† The Abernethian School might quote very ancient medical authority for the *gastric* doctrine of their master. Among others, *Serenus Samonicus*, who, in his medical precepts, has the following remarkable passage, which might serve as a very excellent motto for the school in question.

"Qui stomachum regem totius corporis esse
 "Contendunt, vera niti ratione videntur.
 "Hujus enim validus firmat tenor omnia membra :—
 "At contra ejusdem franguntur cuncta dolore.
 "Quin etiam (nisi cura juvat) vitare cerebrum
 "Pertur, et integros illinc avertere sensus."

De Med. Precept.

Can this piece of ancient pathology be questioned or excelled in the present day?—*Ed.*

pears to consider "most disgusting and dangerous," though (strange to say!) "accompanied with an appearance of satisfaction, not unlike that of the courtiers of Louis XIV. who, by a strange perversion of sentiment and loyalty, were not only proud to be the favourites of the Grand Monarque, but of being likewise counted martyrs to the same disease with which that personage is known to have been afflicted." It is hardly necessary to say, that we are far from encouraging *peculiar practices* in medicine. Diseases are so proteiform, and constitutions so dissimilar, that various and often opposite remedies, must be employed in the same complaint. In fact, the great art of medical practice, consists in watching the phenomena exhibited by the constitution and the disorder; and adapting the remedies to the existing state of the case.* By the anonymous writer's account, such is not the rule at Bath; for on looking over a file of prescriptions in a chymist's shop there, "twenty-eight out of thirty consisted of the blue pill."

13. *Ascites cured by Pressure.*† It is but very seldom that we see abdominal dropsy cured, after the operation of paracentesis. The following case is therefore interesting.

"Mary Mattan, 21 years of age, had enjoyed good health, and menstruated regularly till within six months of the date of this report. She entered the Hotel Dieu on the 23d January, 1815. During the preceding half year, and without any known cause, her abdomen daily enlarged in size, without pain or any kind of indisposition. Latterly, her breathing became embarrassed, her appetite depraved, her sleep interrupted, and her spirits depressed. Examined with care, she presented the following phenomena: considerable emaciation, abdomen very large, not painful, but offering on percussion, unequivocal fluctuation. Diuretics of squill, nitre, and digitalis, purgatives, diluent drinks. The urine was increased, and the size of the abdomen diminished. But this success was only ephemeral, and the dropsy gaining ground, recourse was had to paracentesis. M. Dupuytren drew off a considerable quantity of limpid serum. The abdomen was then carefully examined, but no viscus could be found organically affected. Resin of jalap and nitre were then administered in a diuretic drink. The secretion of urine increased at first; but the abdomen began to enlarge again, and fluctuation was soon evident. This was on the 20th April. Abdominal compres-

* A curious instance of idiosyncrasy was recently witnessed in the person of a medical gentleman, (Mr. Crawford, late of Southampton,) who, while labouring under phthisis, was advised to try the prussic acid. He took a mixture containing only three drops, which raised the pulse from 96 or 100, its usual rhythm, to 150, and it never fell below this afterward, till his death. We only saw him a few days before his decease, and his first words were—"I have been poisoned by prussic acid."

† M. Husson. *Annuaire Medico-Chirurgical*.

sion was now determined on. A bandage was well applied, and drawn tighter as the size of the abdomen diminished. Under the influence of this new measure the urinary secretion increased—the volume of the abdomen diminished, and all sense of fluctuation soon disappeared. On the 6th of May, the patient left the hospital completely cured, and has since retained good health.”

It is needless to observe, that bandages are always applied after paracentesis abdominis; but rather with the view of supporting the abdominal viscera after the removal of the water, than from expectation of their preventing effusion, or promoting the absorption of a fluid effused. They are not, in general, applied with that degree of tightness, or kept uniform enough to answer the latter purposes. The measure is, therefore, deserving of attention.

14. *Ovarian Dropsy cured by Operation.** This was a very bold operation, and verified the proverb—*fortuna favet fortibus*. We shall give the history of the complaint, and the operation in our author's own words.

“Mrs. Strobidge, aged 33. Seven years before, she perceived a small tumour in her right side, situated in the right iliac region; when about the size of a goose egg, she could move it with her hand to the opposite side of the linea alba, and to some distance above the umbilicus. The patient had borne five children, two previous, and three subsequent to her discovering the tumour. The youngest child was 10 months old, and was nursed at the breast when she submitted to the operation. Soon after her first pregnancy, from the commencement of the tumour, and when, as she thinks, it was about 4 or 5 inches in diameter, it suddenly disappeared, probably burst into the abdomen. In 4 or 5 weeks it was as large as before. Before and after the bursting of the tumour she had turns of faintness, which lasted from two hours to half a day. During parturition of her second child, after the commencement of the tumour, it having acquired a considerable size, it burst again, and nothing was perceived of it till eight months had elapsed. In four days from its reappearance it was as large as it had ever been. It was again burst by a fall; great soreness of the abdomen, and confinement of the patient for several weeks was the consequence. The tumour filled again in a fortnight, and from this time continued to increase; it did not burst in the delivery of her last child, which was ten months previous to the operation. The patient's health was not much affected by the tumour. She was costive; and the size of the tumour incommoded her in the ordinary duties of her family, especially in stooping. On examination I found a large tumour in the right side of the abdomen; it was considerably moveable, and I could produce a distinct fluctuation through it.

"Having decided on the operation, and determined the mode of operating, on the 5th of July, in the presence, and with the assistance, of Doctors Lewis, Mussy, Dana, and Hatch, I commenced the operation as follows :—

"The patient being placed on a bed, with her head and shoulders somewhat raised, an assistant rolled up the tumour to the middle of the abdomen, and held it there. I then commenced an incision about an inch below the umbilicus, directly in the linea alba, and extended it downwards three inches. I carried it down to the peritoneum, and then stopped till the blood ceased to flow, which it soon did. I then divided the peritoneum the whole extent of the external incision. The tumour, now exposed to view, was punctured; a canula introduced, and seven pints of a dark-coloured ropy fluid was discharged into a vessel; about one pint was spilt, so that the whole fluid was about eight pounds. Previous to tapping the tumour, by inserting my finger by the side of it, I ascertained that it adhered to some extent to the parietes of the abdomen, on the right side, between the spine of the ilium and false ribs. After evacuating the fluid I drew out the sack, which brought out with it, and adhering to it, a considerable portion of the omentum. This was separated from the sack with the knife; and two arteries, which we feared might bleed, were tied with leather ligatures, and the omentum was returned. By continuing to pull out the sack, the ovarian ligament was brought out, this was cut off, two small arteries, secured with leather ligatures, and the ligament was then returned. I then endeavoured to separate the sack from its adhesions to the parietes of the abdomen, which occupied a space about two inches square; this was effected by a slight stroke of the knife at the anterior part of the adhesion, and by use of the fingers. The sack then came out whole, excepting where the juncture was made, and I should think it might weigh between 2 and 4 ounces. The incision was then closed with adhesive plaster, and a bandage applied over the abdomen. No unfavourable symptoms occurred after the operation; in three weeks the patient was able to sit up and walk, and has since perfectly recovered.

"I was induced to undertake this operation from the following considerations :—The patient, though her health was not greatly impaired, was sensibly affected by the disease. She was quite certain that the increase of the tumour, in a given time, was augmented; probably at no very distant period, it would destroy her. I had, also, an opportunity to dissect the body of a patient, who had died of ovarian dropsy, after being tapped seven times. In this case the sack was found to be in the right ovarium, which filled the whole abdomen; but it adhered to no part except the proper ligament, which was no larger than the finger of a man. I have seen two other ovarian sacks which were taken from patients after death. They had been tapped several times; the sacks were equally unattached, except to their own proper ligaments. Hence, I inferred, that in a case of ovarian dropsy, while the tumour remained moveable, it might be removed with a prospect of success. The mode

of operating, practised in the above case, is the same as I have described to my pupils in several of my last courses of lectures on surgery. The event has justified my previous opinions."*

15. *Poisoning by Arsenic.*† A young married woman swallowed a quantity of arsenic near midnight, and next morning, at 8 o'clock, was found by Mr. Hume suffering the most excruciating torments, constant efforts to vomit, and "all the symptoms peculiar to the arsenical virus." It appeared that she had vomited once or twice rather copiously. Mr. Hume instantly prescribed the following mixture, viz. an ounce of carbonate of magnesia, a drachm and a half of vinum opii, three drachms of sp. lavand. comp. half an ounce of sugar, and sixteen ounces of distilled water. Two large spoonfuls were directed to be taken every ten minutes, while the symptoms continued violent. The first bottle produced a remission of the symptoms, and the second bottle seemed to have effected a cure. It is to be regretted that Mr. Hume's avocations should have prevented him from ever visiting the patient after the first time, till she came to him on the 5th day after the accident.

What share the magnesia may have had in counteracting any arsenic that might have been remaining in the stomach, or the effects of the arsenic, if already disgorged, we leave to the determination of our readers. For our own parts, we are rather sceptical on this occasion, since the case is hurried over, and brought at last to a somewhat impotent conclusion. Mr. H. however, has promised farther particulars, and to these we shall revert, if they appear in time.

P. S. In the succeeding number, Mr. Hume resumes his narrative; but now the cure is attributed to magnesia and opium. In this second paper our author flies from subject to subject with such astonishing rapidity, that we frequently lose sight of him entirely; in short we are quite incapable of deciphering what Mr. Hume would be at. We cannot but join with Mr. Hume in the following sentiment:—"I regret that this woman's case had not fallen into other hands, and that more attention on my part could not be bestowed to render it more complete. I visited her not more than three times, and these were not daily; so that the progressive state of the pulse and many other particulars are evidently wanting." We have the highest respect for Mr. Hume as a scientific chymist, but his best friends will acknowledge that he makes no great figure out of his own department.

* The author, at the time of reporting the above case, was ignorant that Dr. Dzondi had proposed the attempt to cure ovarian dropsy by the introduction of a tent following puncture, that the dropsical sack might slough, and be withdrawn by forceps.—Vid. Medical Recorder, Vol. III p. 63.

† Mr. David Hume.—Lond. Med. Journ. 278.

16. *Tympanites*.* Professor Liquiere informs us that it was the successful treatment of this case that first brought him into notice at Autun, and laid the foundation of his renown, at a time when a host of circumstances combined to render his establishment in practice almost hopeless. Our readers will naturally be curious to know what this tide was that led him on to fortune. It was as follows.

A man, 30 years of age, and previously healthy, was seized, in the year 1814, with violent colic, obstinate constipation, great eructation of wind, considerable distention of the abdomen, the violence of the pain leaving him no intervals of repose. In a day or two, however, the constipation gave way spontaneously—a diarrhoea came on—and the complaint disappeared. At the end of a few days the colic returned, and the pain was more violent than ever. Various means were now tried for the removal of the complaint, as purgatives, liniments, potions, lavements, baths, blisters, &c. but without effect. Our author was then called in, the patient having been ill 22 days, during which no passage by stool had been procured. Dr. L. found the patient meagre and emaciated, the eyes hollow and expressionless, tongue dry and red, no thirst, great difficulty in swallowing, breathing free, great eructation, constant crying out with pain, pulse feeble but not frequent, the whole body in a state of marasmus except the abdomen, which was swelled and tense as a drum, very little sensible to pressure, and sonorous on percussion; the intestines so inflated that their course could be distinctly traced through the integuments; borborygmi so loud that the neighbours were firmly persuaded some living animal was in the patient's abdomen; constipation of 22 days standing; nourishment one cup of broth daily. The patient had made several attempts to destroy himself.

Dr. L. here falls into a long train of reasoning on this case, or as he terms it, "*a mental analysis*" of the pathological elements that entered into its composition. The primitive elements he at last reduced to two—pain and spasm. He makes it out (to his own satisfaction at least) that of these two the pain was the original and the spasm the consequence of pain. This is curious reasoning, for what is pain but the sense of some other morbid state? Is it not far more likely that the pain was the consequence of spasm? Be that as it may, he hit on the right therapeutics. He gave the patient, on the spot, a grain and a half of opium. This was at noon; and at one o'clock the dose was repeated, which removed the pain like a charm, and threw the poor fellow into a sound sleep of three hours. On awaking the pain returned, but with less violence, the constipation and abdominal tension remaining the same. The opium was repeated, and again the patient fell into a profound sleep. In the morning he complained not of pain; and now a purgative injection of salts, manna, &c. was administered. Presently the patient felt an inclination to stool, and now "*la scène excrémentitielle com-*

* Professor Liquiere, Journ. Compl. Oct. 1821.

menca." The patient sent forth such prodigious quantities of flatus and feculencies, that the neighbours assembled to view the miracle. It is almost needless to state that from this moment the man was freed from all complaint.

Every good practitioner in this country would, in such a case, have pursued nearly the same course—excepting, perhaps, that he would have combined opium and purgatives together, a most excellent and judicious practice in a great variety of complaints, whatever may be said to the contrary by speculative physicians.

17. *Bronchocele*.* The patient was affected with a considerable enlargement of the thyroid gland for 20 years, together with a tumour on the left side of the neck, distinct, in some measure, from the bronchocele. The common carotid artery was found pulsating strongly immediately under the platysma myoides, and could be grasped by the finger and thumb. The vessel appears to have been displaced by the lateral tumour. The superior left thyroideal artery was also found pulsating strongly in the upper part of the tumour. The patient suffered considerably in swallowing and in speaking sometimes. Our author determined on taking up one or more of the thyroid arteries. The operation was performed on the 10th of May, 1821. Having reached the thyroid artery by a cautious dissection, an animal ligature of suitable size was applied. The incision healed kindly over the ligature. The patient being of a delicate nervous constitution, suffered considerably for some days, from tremblings, chills, giddiness, and anorexia. These symptoms gradually subsided; and, from the time of the operation the patient "had more freedom in swallowing," was less teased with a drawing sensation under the eye, and she could lie lower down in bed. In a few weeks after the operation the tumour was evidently smaller, less painful, and hung looser and lower down. "In short, the operation has been greatly useful, and will probably prevent any further growth."

18. *Arteritis*.† The subject of this disease was a young man, 32 years of age, of delicate constitution, and very limited intellectual powers. About three years ago he became melancholic, and fond of solitude, which ended in mental derangement. After having been nine months under the care of Dr. Esquirol in his *Maison de Santé*, he was conducted to the Charenton, on the 19th February, 1819, where he remained five months without any amelioration of the mental hallucination. He was thin, but apparently in health

* Dr. Jameson, American Med. Recorder, No. 17.

† Observation d'Arterite, Par M. Bayle, Interne en Medecine à la Maison Royale de Charenton. Bibliothèque Medicale, Sept. 1821.

of body. During the last two or three months, the patient experienced some difficulty of breathing, which gradually increasing, was attended with œdema of the feet. Five days after this he was examined by the reporter, and the following phenomena were noted. Face flushed—lips of a violet colour—sense of great fatigue and weight on attempting to move—anxiety—general malaise—hands violet colour—abdomen tense, and apparently containing an extravasated fluid—feet cold and œdematous—respiration quick, laborious, and difficult—pulse small and frequent—pulsations of the heart strong and irregular—no appetite—constipation of the bowels. Diuretics and diluents prescribed. In a day or two he became clear in his intellects, and related in the most distinct and faithful manner, the symptoms of his complaint. All the symptoms above stated continued to increase, and Dr. Royer-Collard being consulted, pronounced the disease to be an affection of the heart, and probably of the large vessels. Died three days afterward.

Dissection. The arachnoid membrane opaque in several points—thickened and very resisting, particularly on the sides of the cerebral hemispheres. Pia mater infiltrated with a serous fluid, which was found in considerable quantity also at the base of the brain, and in the lateral ventricles.

Thorax. In each cavity of the pleura about half a pint of serous effusion. Lungs sound—heart twice and a half its natural size—the right auricle prodigiously dilated, and containing clots of black blood—and its internal surface covered with a molasses-like substance apparently different from the fibrine of the blood. The right ventricle was also much dilated, and its *carneæ columnæ* remarkably strong. The parietes of this chamber were double their ordinary thickness. The inner coat of the pulmonary artery was of a scarlet colour throughout, which appearance could not be scraped off by the scalpel. The interior of the left auricle presented the same phenomenon as the right; except that the lining exudation was of greater consistence and yellower than in the last-mentioned chamber. The left auriculo-ventricular opening was contracted, so that the point of the little finger could scarcely be passed through it. The left ventricle was dilated in respect to cavity, and thickened in regard to parietes. The aorta was smaller than the pulmonary artery, and not above two-thirds of its natural diameter. Its inner coat presented the same scarlet appearance as the pulmonary artery; but the *venæ cavæ* were natural.

There was some effusion in the cavity of the abdomen—the mucous membrane of the stomach was reddened—the liver enlarged—the intestines sound.

The above case we consider to be interesting, both in respect to the pathologia of insanity and cardiac affection. From what we have seen ourselves, and learnt from those who have the charge of lunatic asylums, the brain very generally presents the appearances above described in the malady in question. We consider the patient, in this case, to have died from disease of the heart as much as from inflammation of the arteries.

Mr. Smerdon* has related an interesting case of pulmonic inflammation, terminating in (we should prefer saying, accompanied by) arteritis. The pneumonia was most obstinate, and accompanied, from the beginning, with pain, in the *left hypochondrium*. Decisive depletion relieved the symptoms, but a relapse took place, with sense of pressure below the thyroid cartilage, difficulty of swallowing, loss of voice, sense of fulness, pain, and *pulsation in the left hypochondrium*.† In two days from this time the patient died.

Dissection. Twenty-four ounces of bloody serum in the left side of the chest—bronchial ramifications filled with a thin colourless fluid—substance of the lungs soft, and easily crashed by the gentlest pressure. The heart was flaccid, but the interior tunic of the aorta, as far as it could be cut out with a scalpel, was affected with the most intense inflammation, being much thickened, hardened, and easily stripped off with the nail. The pulmonary artery was natural.

We do not see just reason for Mr. Smerdon supposing that the pulmonic inflammation terminated in arterial. He says "the pulsation in the epigastric region was symptomatic of the arterial inflammation." But the patient complained of pain there long before the relapse, and he does not appear to have been examined with the hand till the 21st, a day or two before his death. Then, of course, the *pulsation* was ascertained. It even appears to us that the immediate cause of death was the effusion both into the bronchial cells, and the thoracic cavity—at least this effusion was quite sufficient, independent of the arteritis, which we cannot look upon as more than an accompaniment—not a conversion of the pulmonic inflammation.

We regret that the examination of the arterial system was so limited. The arteritis appears to have been discovered after the heart had been removed, and the body sewed up.

Mr. Smerdon makes some interesting observations on pulsation in epigastrio resulting from irritating matters in the stomach, or accumulations in the bowels, which we recommend to the attention of our brethren.

* *Méd. and Phys. Journal*, Dec. 1821.

† "In our article on arteritis, in a former number of this *Journal*, we alluded to Aræteus as seeming to have known something of the disease under consideration. The following passage is quite unequivocal, and which we did not then observe.

"Venæ concavæ, crassæque arteriæ, quæ secundum dorsum extenduntur inflammationem ardoris speciem majores nostri appellaverunt; nam ardoribus similes affectus in ambabus oriuntur; ignis acutus, et acer, fastidium, sitis, anxietas, *pulsus palpitans in præcordiis* et in aversa parte, quam græci ΜΕΤΑΡΕΑΞΟΝ vocant et quotcumque a me in volumine de signis relata sunt," &c. *Lib. II. Cap. 7.*

Aræteus advises very active treatment in this serious disease. *Venas itaque in cubito cedito, multumque sanguinis, sed non semel totum mitteto, immo et bis, et ter, et alio die, quo interim vires instaurentur repetito.*" *Id. Ed.*

19. *Inflammation of various Organs.** The darkness of French therapeutics is every day throwing a blaze of light on pathology—in other words, the inefficiency of the remedial measures employed by our neighbours, is daily corroborating, and indeed improving, the rational and energetic practice of this country. We hope a day will come, when our Gallic brethren shall open their eyes to the errors which they are now committing. Their conduct, indeed, in this respect, is one of the many enigmas exhibited by that ingenious but eccentric nation.

Case. Jean Croquois, a fusileer, 19 years of age, of bilio-sanguine temperament, and enjoying good health till the month of January, 1820, committed about that time several excesses, particularly in spirituous liquors. On the 5th of February he was taken ill, and entered the VAL DE GRACE Hospital, complaining of intense heat internally, ardent thirst, pulse quick and hard, skin hot and dry, disgust for food, slight pain in the abdomen, violent headach, pains in the lower extremities, disposition to shiverings. *Thirty leeches to the epigastrium—gum water edulcorated.*

6th. Next day the symptoms had preserved their intensity, and there was, in addition, a severe and frequent cough. *Edulcorated gum water continued—a poultice to the chest—a venesection of twelve ounces.*

7th. Slight diminution of the cough—but the pulse is still frequent and full—tongue red and dry—thirst intense. These symptoms continued without diminution till the sixth day of the disease, (10th) when abdominal pains and diarrhœa induced to the application of leeches to the anus, which checked the colic and looseness, but produced no mitigation of the general inflammatory symptoms before described.

15th. Delirium during the night, with subsultus. In the morning a reduction of cutaneous temperature—swelling and lividity of the feet—piercing cries, and fierce expression of countenance. *Gum water, warm cataplasms to the feet.*

18th. General prostration of strength—cough teasing; but no expectoration—stools involuntary. Death at two o'clock in the morning.

Dissection. *Head.*—Vessels of pia mater and tunica arachnoidea injected—yellow serous infiltration between the lamina of the arachnoid, and between this membrane and the pia mater. The pia mater and arachnoid covering the anterior superior part of the cerebellum very much thickened, and in some places suppurated. The substance of the brain was soft; the ventricles distended with about an ounce of water; the plexus choroides pale and infiltrated; a serous effusion in the cavity of the spinal chord.

Thorax. Lungs red and containing much blood, but still a little

* Scoutteten, Surgeon to the Military Hospital of VAL DE GRACE. *Journal Universel des Sciences Medicales*, No. 66.

crepitous. The mucous membrane of the larynx and trachea intensely inflamed. The heart appeared more voluminous than natural, and the parietes of the left ventricle were nearly an inch in thickness. In this chamber, near the aortic orifice, there appeared an ulcer about an inch in diameter, the edges of which were swelled, red, and ragged.

Abdomen. The stomach and intestines, viewed externally, appeared sound; but, on more accurate investigation, there were several portions of the digestive tube contracted, red, and inflamed. The mucous membrane of the stomach was pale, excepting a few points near the pylorus. The interior surface of the intestines presented several points of inflammation. Liver of a deep red colour and gorged with blood. Other viscera sound.

The author of this narrative, with great self-complacency and sagacity, amuses himself—and the society where it was read, with remarks on the correspondence between the phenomena during life and the appearances on dissection, without ever dreaming that he was himself most highly culpable in looking on at this unequivocal index of internal inflammatory devastation, prescribing his gum water and leeches, when he ought to have been bleeding to syncope, or till the cessation of those symptoms which he so coolly describes.

There is not a surgeon-apothecary's assistant in the British dominions who would not be turned out of his situation for such gross misconduct. It is on this account that we can only have *graphic descriptions* of such exquisite pathological specimens in this country. The originals cannot be seen here—for who would have the courage to acknowledge himself the medical attendant, where such terrible proofs of his incapacity appeared on dissection? But, as we have often before observed (and cannot too often repeat) these specimens are most invaluable beacons to keep us in the safe channel of practice where we now are, and warn us of the dangers which lurk under half measures in acute diseases.

20. *Identity of Variola and Varicella.** Mr. Bampffield we know to be a gentleman of integrity and discrimination; we should, therefore, be inclined to place confidence in his statements. The case in question bears immediately on the important question now agitating the professional world.

Mrs. D. had been vaccinated when young. On the 14th Dec. 1821, she became affected with pyrexia, headach, and nausea. On the 16th Mr. B. saw her, when an eruption of small red protuberances, differing slightly in size, and nearly circular, with a transparent vesicle in the centre, had spread over the face, neck, breast, arms, and hands. He pronounced the disease varicella. On

* Mr. R. W. Bampffield. Med. and Phys. Journ. No. 278.

the 17th the eruption had spread all over the patient, and was painful in the palms of the hands. On the 18th the febrile symptoms had considerably abated, and the lymph in the vesicles had become slightly straw-coloured. On the 19th the vesicles on the face began to pucker and fade, this stage being less observable in other parts. On the 20th there was no fever—a small brown scab had begun to appear on some of the vesicles; which, on the 21st, had become general, and fell off from the 8th to the 11th day. Mrs. D. punctured the vesicles on the palms of the hands, which had the effect of entirely evacuating the contained lymph, and of leaving them on a level with the surrounding integuments, without being again filled.

Her infant on the breast, which was two months old, *not vaccinated*, showed, on the 25th December, numerous little red spots on the face, neck, and breast. His eyes were red, his throat sore, and the febrile symptoms severe. The eruption gradually spread to the extremities, and some eruptions appeared to come out successively on parts of the body, for two or three days. On the 26th the lips, the tongue, and the membranous lining of the mouth and fauces were thickly studded with the eruption, occasioning great difficulty in sucking and swallowing. The pocks were distinct—surrounded by a circular margin of inflammation—and gradually filled and enlarged. The fever became moderate; but the irritation and restlessness were alarming. “On the 5th day it was evident the disease was not varicella.” “The most superficial observer would now have pronounced the eruption to be small-pox.” The central depression was evident; “and it was discovered that the structure of the pock was cellular, and filled again on being punctured.” The child died on the 8th or 9th day of the eruption.

On the day of the child's death, Master Dickenson, a younger brother of the mother, and who had been living with her during the period of her sickness (formerly vaccinated) became ill. On the next and succeeding days an eruption came out, exhibiting transparent vesicles in the centre. “This eruption was similar to Mrs. Drury's, and followed the same course.” On the 7th day the boy was so well that Mr. Bampffield withdrew his attendance.

We are at a loss to conceive on what grounds Mr. Bampffield upholds the identity of variola and varicella, as far as these cases are concerned. We do not see a single particle of evidence in the whole affair that tends to this identity. Mrs. Drury *had* been vaccinated—and she exhibits what have been described as *modified* small-pox. Her infant *had not* been vaccinated—he exhibits unequivocal variola, and dies. Master Dickenson, on the other hand, had undergone vaccination, and he goes through the modified form, the same as Mrs. Drury. What has varicella to do with the business? As for the *cellular structure* in the infant's case, Mr. Bampffield will hardly set up a distinction as a proof of identity. There appears, in our humble apprehension, nothing in these cases but proofs of the modifying power of vaccination. We do not enter into the general question of the identity of variola and varicella at all—we only comment on the evidence before us in Mr. Bampffield's paper.

21. Inflammatory Dropsy.* The writings of Blackall, Crampton, Parry, Abercrombie, and many modern authors, have thrown much light on the nature, and improved the treatment of dropsy. We were lately much pleased with some observations of Dr. Graham, in the 71st. number of the Edinburgh Journal, as they coincide with our own opinions, and will, we hope, prove useful to the rising generation of the profession. The professor very properly observes, that large and small doses of medicine or detractions of blood are merely relative terms, and should never be understood as denoting absolute quantities—for what would prove a large dose or detraction in one person, might prove trifling in another. The general rule of conduct, therefore, ought to be derived from the *sensible effect of our practice*. Every dose of medicine, however large, is too small—every quantity of blood drawn, however great, is too little, if it stop short of the usual sensible effect on the constitution, though not perhaps on the disease.

“If,” says Dr. G. “we produce upon the constitution the effect we have reason to look for, and the disease remains as before, then we have indeed fairly tried the prescription, and have sufficient reason to conclude that our treatment is inapplicable. If we direct purgatives, and succeed in opening the bowels freely, without relieving the disease, then we have reason to think that cathartics are not suited to the case. If we employ blood-letting in a patient with a full hard pulse, however large the quantity may be that we take away, we do not try the remedy if we stop before we have produced its usual sensible effects,—before we have brought down the fulness and strength of the pulse; but if we have done this, and the disease continues unabated, then we are justified in changing the treatment.” *Edinb. Journal, No. 71, p. 226.*

This we are convinced is the proper general rule of conduct—but, of course, there are many exceptions to all general rules in medicine, and the good physician will not act, like an automaton, upon an invariable principle, but adapt his practice to the *specialities* of the case.

In respect to blood-letting, the ultimate effect of this measure is to diminish the strength of the circulation, though in the first instance it very often raises it. When we determine on bleeding, where there is a hard bounding pulse, we may allow the stream to flow till the circulation is moderated. The case of inflammatory dropsy minutely detailed by the professor, forms a practical commentary of the best kind on the foregoing reflections.

Case. Robert Norris, a robust young Irish labourer, presented himself at the Infirmary, swelled from head to foot with anasarca, and having obscure fluctuation in the abdomen, little appetite, and thirst; bowels open from medicine; urine scanty; pulse 66, small, and soft. Three days before leaving work, had been attacked with

* Professor Graham, *Edinb. Journal*, No. 71.

severe rigours, sense of weight and heat at the epigastrium ; after which the œdema commenced. He had only taken some purgative medicines. Dr. G. learned that he had been much overheated in digging, and as often chilled on going home from his work. The symptoms of fever being inconsiderable, Dr. G. tried the warm bath, purgatives, and diuretics, (calomel, squill, and digitalis,) and on the 3d day blood-letting to twenty ounces, without producing any beneficial effect. On the 4th day he was again bled. On the 6th day another bleeding to 32 ounces, when the pulse rose in frequency and became more soft. The crassamentum had a gelatinous coat, and was contracted on the surface. Seventh day, pulse 80, and soft ; but still remarkably full. For several days the lancet was not had recourse to, and the œdema went on increasing, attended with some dyspnoea. The young man now presented a very aggravated case of anasarca, with ascites, and perhaps hydrothorax. "He was distended like a sack"—his weight and bulk prevented motion—eyes sunk and small—appetite quite gone—nights restless. It was determined to carry the bleeding farther. *Seventy-two ounces* were immediately taken—the first 18 ounces flowing moderately free, the remainder in a very full stream—the pulse continually rising in firmness, and not becoming soft till the very last. There was no tendency to syncope. The patient observed that there was no alteration in his feelings till 60 ounces were abstracted—after this he felt much more happy. There was a slight buffy coat on all the blood. In half an hour after the bleeding he could lie in any position. He slept uninterruptedly in the night, and every night after. Next day his respiration was free, and he declared he felt quite well. Another bleeding, however, of 32 ounces, became necessary a few days afterward, in consequence of a sense of oppression. This blood was buffed and cupped. From this period the disease rapidly subsided. The bowels were kept very loose by calomel, gamboge, and aloes. The urine rose to eleven pints per diem—the pulse generally about 90, full and soft—no debility attributable to the bleeding, nor other unpleasant symptom, except a degree of chilliness. Some time after he was dismissed cured. It was curious, says our author, to observe how fully the kidneys did their duty after the depletion, without the exhibition of diuretics. When the patient first came into the hospital, the urine was a mere nothing—after the second bleeding it rose to eight ounces—and in the 24 hours preceding the third bleeding he passed two pints of water. On the day after the third bleeding it was two pints and a half—and previous to the great bleeding, it was three pints and a half. After that bleeding it soon got to eleven pints per diem.

We think this case is calculated to do much good. We have no doubt that debility is too often kept up or induced by what is termed *cautious* bleeding—that is, bleeding to a certain *quantity*, and not to the production of a certain and necessary *effect*. We hope Dr. Graham will pursue this and other subjects with that zeal and intelligence which we think are plainly discernible in his character.

22. *Burns and Scalds.** It appears from Mr. Stokes that the late Mr. Shute, of Bristol, was accustomed to recommend the application of spirit of turpentine, or some warmed spirits, at first, "on the principle of a cooling lotion; knowing that, as the pain and heat of the part subsided, what at first was a cooling lotion, would become, if continued, a stimulating dressing." After the first day, therefore, or earlier, he inculcated a change to a milder application—the linimentum terebinthinæ, which might be lowered, if necessary, with olive oil, or simple ointment. He also strictly limited the spirit of turpentine to the injured surface—and had no objection to lotions to the surrounding parts. Where the vital powers were much depressed, he gave cordials—in others, opium to allay irritability. He was very particular in keeping limbs in a state of extension and rest. During the suppurating stage, the following cerate (in use at the Middlesex Hospital) Mr. S. considers as unrivalled. "It seems to soothe while it imbibes the discharge."—*R. Empl. plumb. oj. ol. oliv. ojs. liquefac. simul, et adjice, assidue movens, cretæ pptæ. acidi acetici aa oss. ft. ceratum.*

23. *Influence of Chagrin on the Hepatic System.†* The agency of moral emotions on our physical structure has been observed in all ages and countries. We are no advocates for the identity of mind and matter; but every thing shows us the strong though inexplicable bond of connexion between body and soul—whence spring all the sympathies of mutual pleasure and pain—all the reciprocities of rest and action. We see every passion of the mind act primarily, and with greater or less influence according to their force, on the functions of the body. We see the quickened circulation follow the anger—the start follow the surprise—the swoon succeed the sorrow. In these instances, and a thousand others, it is manifest that the priority of action belongs to the mind. But the converse is not the less apparent in numerous instances. We see mental emotions rendered more vivid by the application of vinous stimulus to the nervous coat of the stomach—depression of spirits follow dyspepsia—irritability of temper result from quickened circulation in the brain—prostration of mental energy from antimony in the stomach, &c. &c. These are all familiar to the least attentive observer; but the peculiar and striking effects of mental emotions on the liver and its functions, have not been so generally described, or indeed remarked, as their frequency would authorize. Of the instance related by M. Husson, in the work before us, we shall present a brief outline in this place, as it is calculated to excite our sympathy, and also our indignation on more accounts than one.

"Frances Guidet, a female servant, 32 years of age, of strong

* Mr. Stokes. *Med. Repos.* p. 101.

† M. Husson. *Annuaire Medico-Chirurgical*

constitution, but much sensibility, had enjoyed good health formerly ; but having paid the most assiduous and zealous attention to a sick mother and son, in the family where she resided, this faithful domestic, exhausted by watching and fatigue, experienced in her turn a slight indisposition, when those she nursed had recovered. Instead of giving the poor young woman an asylum under the roof of those who were so much indebted to her, she was turned out of the house, and forced to seek shelter in an hospital ! This act of ingratitude made such a deep impression on the susceptible mind of the poor creature, that she fell into a state of profound chagrin. When interrogated at the Hotel-Dieu, she could only answer by sighs and tears. The most attentive examination could only detect debility of body and dejection of mind. She said she should die of chagrin—a prognostic but too fully confirmed ! The day after she entered the hospital her skin and eyes presented a slight yellow tint—the countenance being indicative of much internal suffering. The yellow tint became deeper—the region of the liver swelled—the prostration of strength became more considerable. The right hypochondrium now became painful, the pulse small, the respiration quick, the stomach affected with bilious vomiting, the bowels with diarrhoea of ill-conditioned matters. No remedies appeared to do good. The liver projected below the ribs—and felt hard—the patient could only lie on her right side, and experienced great pain and misery. Leeches were twice applied to the anus without effect—to which were added diluents and antispasmodics. A bowel complaint reduced her to a skeleton, and finally terminated her existence on the 25th day after her entrance in the hospital. The inspection of the body was objected to by the friends.”

This case offers a good illustration of the influence of mental despondency and chagrin on the hepatic system in particular. We have seen a very great number of similar cases, and they were generally much more unmanageable and fatal than hepatic affections from other or physical causes. It was therefore well observed long ago by the celebrated Ballonius :—“ Nos vos (inquam) in ipsis operibus artis experientia deducimus eos omnes quos meror ægritudoque animi in morbum conjecerit, aut letaliter aut gravissime periculosissimeque ægrotare. Tanta est vis ægritudinis ipsius pathematumque animi.”—*Consil. medecin. lib. iii.* It is needless to remark that in the present instance, no means were taken to check the disease that were at all calculated to effect that object.

24. *Poisoning by Arsenic.** A diabolical wretch attempted to poison four people in one house, and succeeded in one case out of the four. The fatal case did not terminate till the sixth day, and consequently no poison was to be substantially detected in the dead

body. Neither was any particle of the arsenic found among the food administered—therefore there were no medical proofs but the symptoms during life, and the appearances after death. What the circumstantial evidences of the witnesses were we are not informed ; but it appears that the criminal was condemned, and, before execution, confessed to the administration of arsenic. It is therefore interesting to know what were the grounds of the medical evidence.

The arsenic was taken on the morning of the 19th of August, and the man did not present himself to the narrator till the evening of the 24th of the same month. The man stated that on the 19th his illness commenced with sickness, succeeded by thirst, headach, and ultimately vomiting, which symptom often recurred during the next four or five days. In the early part of this space, the man was heard to complain of pain in his stomach, eyes, throat, breast, and arms. He voided his urine frequently. Yet his illness had scarcely at any time confined him to bed. On the 22d he took a dose of Epsom salts, which operated. On the 24th he rode six miles to see Mr. Murray, for the first time, complaining of the following symptoms ;—pain and heat in the region of the stomach and lower part of the chest ; occasional uneasiness in the abdomen, and sometimes ineffectual efforts to go to stool ; thirst ; difficulty of breathing ; heat and uneasiness in the throat, with hoarseness ; soreness in the eyes, which appeared inflamed ; shifting pains in the extremities, particularly the arms, which were unusually weak ; great restlessness ; anxious expression of countenance, pulse from 100 to 110—not strong. A blister was applied over the stomach and lower part of the chest, and an opiate ordered at bed-time. On the following day (25th) Mr. Murray visited him at his own house, and found him nearly as above. His countenance exhibited a disturbed and anxious expression ; the redness of his eyes and hoarseness were increased ; and Mr. M. this day observed on the palate and uvula, small roundish white acuminate prominences, seemingly the membrane covering the palate bones and velum pendulum, detached at the parts by a whitish liquid. This day an ounce of castor oil was administered. He died in bed that night, without being observed. We shall give the dissection in the words of Mr. Murray.

“ The face had a natural, composed appearance ; and the rigidity of the body did not appear to be different from what is common. The right ear, and corresponding side of the face, as well as the scalp, exhibited a deep clay-blue colour. On the chest and belly, several spots and streaks, some green, others blue, were observed ; and the back, upon which the body lay, was from head to foot of a livid colour ; while several roundish spots of a still deeper hue, gave to the shoulders and neck a mottled appearance. The penis was much swollen, and red. The scrotum also was enlarged, and of a dark blue colour.

“ Upon opening the belly, the smell was not unusually offensive, and the abdominal contents did not appear to us to have undergone alteration after death ; but, in the cavity, several ounces of a high-

coloured liquid were found. On the intestines, jejunum and ilium, many purple spots, some of them several inches in circumference, were observed: and the outer surface of the stomach, in a tract which extended from the cardiac orifice, and occupied, for some distance downwards, the whole circumference of that viscus, excepting the small curvature, was of a clear, dark-red colour; and through this space dark lines, apparently veins, ramified. This appearance, perhaps from 20 to 30 square inches in extent, was strongly marked in contrast with the natural state of the inferior extremity and small curvature. The substance connecting the stomach to the spleen, was, as well as a small part of the transverse colon, of a red colour. The spleen was gorged with blood; the liver healthy. The duodenum, from a small distance below the pylorus, almost to its inferior extremity, and round nearly the whole intestine, was of a very dark purple colour. Upon opening the stomach, the internal surface of that part where the outward appearance, already described, existed, was found of a bright colour, and over this lighter dots were thickly scattered; making such an appearance as might be produced by a red colour being dashed, from a painter's pencil, upon a somewhat darker ground. The inner coats of the duodenum were very dark coloured, with a slightly reddish hue, pulpy, thickened, and easily separated from the peritoneal covering, while in one roundish spot, of the size of a crown-piece, the villous and muscular coats were entirely wanting. Red patches were observed on the inner surface of the jejunum and ilium, the shape, size, and situation of which were the same as those of the appearances already noted on the outside of these intestines. The stomach and duodenum contained about a quart of a brown, semi-opaque, thickish liquid; the jejunum and ilium were empty, and coated with a yellow viscid matter. The lungs and heart were quite healthy; but in the cavity of the thorax were 10 ounces of a reddish turbid liquid, and about half that quantity in the pericardium. The pharynx was of an unusually red colour: the whole of the brain was healthy, and of firm consistence." *Edinb. Journ.* p. 171.

The symptoms in the three individuals who recovered, were, of course, milder considerably in degree, than in the case here detailed. All four had breakfasted together on the morning of their illness, on porridge consisting of milk, salt, and oatmeal. By each of the parties a dose of castor oil, and a course of weak Epsom salts had been taken. They had also entered on a medicine composed of alkaline solution and opium, but considering themselves beyond hope they left it off.

We grant, with Mr. Murray, that the *internal* evidence of poison here is very strong; but we do not think it conclusive, were there no *external* evidence of a more unequivocal nature. We put it to Mr. Murray whether, if no suspicion had existed in the minds of the parties poisoned, and this individual *alone* had applied to him, and been opened after death, he would have decided that he died of poison? The circumstances of four individuals being taken ill at the

same time, and with nearly similar symptoms, was a part of the external evidence, and has nothing to do with the internal or pathological evidence under consideration. The whole of the phenomena, both before and after death, were the product of inflammation, and although the man's confession puts it beyond a doubt, that arsenic was the cause, yet the same effects might and do ensue, from other causes; consequently, we do not see how the medical evidence could affirm, merely from the internal phenomena, living and post mortem, that the death was occasioned by arsenic. Nothing would induce us to give such an evidence, but the detection of the poison itself. It was for the jury to take external evidence to their aid, but we conceive the surgeon or physician had only the symptoms and dissection to guide them. We regret that Mr. Murray has not given the particulars of the trial, as it would form an interesting article in a forensic point of view. We hope he will publish the evidence.

25. *Voltaic Battery.** It is known to the readers of this Journal, that Dr. Philip, some years ago, presented to the Royal Society an account of some experiments, from which he inferred, that the functions of the stomach and lungs are interrupted by dividing the eighth pair of nerves in the neck, and restored by subjecting these organs to the influence of the voltaic battery; that these inferences were called in question by certain members of the Royal Society, who could not obtain the same results from Dr. Philip's experiments; that Dr. Philip, for the satisfaction of these gentlemen and the Royal Society, last year, repeated his experiments, with the assistance of one of the gentlemen in question, Mr. Brodie, at the Royal Institution, where the president and other members of the Royal Society witnessed the results, and that Mr. Brodie, in the handsomest manner, then declared his conviction of the accuracy of Dr. Philip's statements.

The Royal Society, with that liberality and candour which are inseparable from a love of science, now publish the results of the investigation; which will do away the effects which naturally arose, from the report of the gentlemen above-mentioned, having been received as a refutation of Dr. Philip's statement. That now published, is drawn up by Dr. Philip, in his own and Mr. Brodie's name. It is very short, but we have only room for the following extract.

"In other experiments, in which, after the division of the nerves, the divided ends had been turned completely away from each other, little or no perfectly digested food, when the animal was allowed to live some hours, was found in the stomach, and the longer the ani-

* Some Positions respecting the influence of the Voltaic Battery in obviating the effects of the Division of the Eighth Pair of Nerves, drawn up by A. P. W. Philip, M. D. F. R. S. E. &c. and presented by B. C. Brodie, Esq. F. R. S.—(From the Philosophical Transactions of the present year.)

mal lived, the smaller was the proportion of the digested food found in the stomach ; the great mass having the appearance of masticated food, which was not sensibly lessened in quantity, however long the animal lived. In an experiment in which, under such circumstances, the stomach was exposed from the time of the division of the nerves, to the influence of a voltaic battery, sent through the lower portion of the divided nerves, its contents were apparently as much changed, as they would have been in the same time in the healthy animal. The change was also of the same kind ; the contents of the stomach assuming a dark colour, and those of the pyloric end being more uniform, and of a firmer consistence, than those of the central and cardiac portions of the stomach, while the whole contents became less in quantity."

26. *Surgical School of Edinburgh.** Mr. Liston is well known as a junior surgeon of Edinburgh, who has performed and published accounts of some very perilous operations in surgery. He has passed the ligature for subclavian aneurism successfully, between the scaleni muscles—the fourth operation of the kind *only*, and almost the *only* successful one.—In another case of ossified aneurismal tumour, he removed the base of the scapula with success, &c. &c. &c. The *Revue Medicale* (September 1820, p. 117) observes of that latter operation, that it was “*accompagnée de circonstances très remarquables, et montre jusque quel point la chirurgie peut être entreprenante sans témérité.*” It is also well known that the simplicity of his methods of operating, their brevity and success, whatsoever the operations be, have been so conspicuous, that he must, at all events, point towards the summit of Scottish surgery, if not more. This is doing a great deal, but for this, it seems, he has encountered much of the same unrelenting persecution which deprived Edinburgh of the talents of Messrs. John and Charles Bell, and threw obstacles into the paths of a Brown and a Gregory. We have no inclination to enter into this inglorious conflict, but it is impossible not to feel indignant at the *uncontradicted* exposures in Mr. Liston's letters. Mr. L.'s cause we hope is too good to need our support, and his proposition of a new school of surgery deserves high encouragement, for we are declared enemies to *monopoly* in science, as well as in commerce. Nothing would so much exalt Edinburgh, as a school of surgery, founded on the same excellent system as that of medicine. It is to be feared, however, that M. L. will experience great obstacles to his scheme from the opposition of an unrelenting and arbitrary force, deafened by prejudice and based on personal influence and interest. Be this as it may, superior example will work : Dr. Duncan, jun. in his excellent Clinical

* Three letters to the Contributors to the Royal Infirmary, to the Lord Provost, and to the Managers of the Royal Infirmary, Edinburgh, by Robert Liston, Surgeon, &c. 1822.

Reports, candidly confesses that though the Edinburgh schools disavowed John Brown's doctrines, yet that their poison was so subtle and pervading that it decidedly influenced all their practice. It is to be hoped that somewhat of modern British feeling has had an alterative effect on former Northern habits ; but Edinburgh has long been famed for these things, though most readers of those theories of Scotch wisdom and liberality in public economy, which appear in certain political journals, would look confidently for something better. We will venture to advise those luminaries who can see errors so acutely in our English institutions, to reflect that there is some work done at home, which would not bear the liberal air in our generous country for an instant. This they not only know, but must opine, that the measures and principles which they most inconsistently advocate under their own domination, to sink genius at its first breath, are precisely those which, if pertaining to England, would call forth their bitterest animadversions.

In conclusion, we beg to state it as our belief, that Mr. Liston has been intemperate in his expressions, and too violent in his conduct—circumstances that may well admit of palliation, on account of his youth and zealous disposition ; but no excuse can be offered for the rancorous abuse and vile vituperations launched forth by the hiring retainers of the law against a defenceless, youthful, and we will repeat, an excellent operating surgeon, in order to sacrifice his rising character, and *extinguish* his dawning merits at the shrine of a haughty oligarchy. But we confidently anticipate a salutary reaction against this ignoble persecution. Let the youth of England, Scotland, and Ireland, whose hearts are not yet rendered callous by self-interest and party cabal, do *justice*. Let them examine with their own eyes, and act with independence and generosity. We need not ask more, and we cannot expect less.

27. *Melanose*.* This able and indefatigable anatomist and surgeon has found a black matter, which coloured linen and paper as much as Indian ink, in various parts and structures of the human body—frequently in the form of encysted tumours. On examination these degenerations presented no trace of vessels, nerves, or fibres. M. Breschet considers them as morbid secretions rather than decompositions of tissue. He has found them in various animals, as the dog, cat, hare, but particularly the horse. This black matter was sometimes fluid, pultaceous, hard, concrete, laminated. It is homogeneous, and without taste or flavour. It is miscible with water and alcohol.

The encysted melanoses vary in size from that of a pea to a pigeon's egg. When larger than this, M. Breschet thinks they are

* M. Breschet, *considerations sur une alteration organique, &c. &c. &c.* Journal de Physiologie, par M. Majendie.

conglomerations of several smaller ones. Our author has sometimes found these melanoses mixed with encysted tumours, containing a very yellow kind of fat, with mucilaginous and gelatinous substances.

Another form of these melanose productions is that of false membrane, or membranous expansions on the surfaces of the mucous and other tissues. Sometimes the black matter is extravasated, in the consistence of bouilli, into the cavities of the body. In some cancerous affections of the liver, intestines, and uterus, the serous infiltrations are tinged with this black matter.

This matter has been analyzed by Messrs. Barruel and Lassaigne, and these analyses lead to the conclusion that it is a deposition of the colouring matter of the blood, of fibrine, and of three distinct sorts of fatty matter. In many diseases we observe secretions of dark matters, as the black vomit in yellow fever, and black alvine excretions attending cancerous affections of the stomach and bowels. The black incrustations on the teeth, gums, and tongue, in low fevers, bear a strong resemblance, our author thinks, to the matter of melanoses, as well as the discharges in *melana* and *hæmatemesis*, M. Breschet is disposed to think that jaundice is produced by the blood rather than the bile—an opinion founded on necroscopical observations made in the Hospice des Enfants on the bodies of jaundiced foundlings. The yellow suffusion which takes place soon after birth can hardly, he imagines, be produced by bile. He thinks it more natural to attribute this phenomenon to changes which take place in the circulation, the same as we observe after contusions, &c.

This is a very interesting and ingenious memoir, honourable to the author, and advantageous to the Journal in which it appears.

28. *Tetanus*.* Tetanus, especially of the traumatic kind, is so dreadful a disease, and so very often fatal, that every successful case should have all possible publicity, for the good of humanity and the honour of the profession.† Mr. Barr's patient was a young man, who, in falling from a horse, was trampled on the belly by the animal. He went about his usual avocations, however, for seventeen days, when he was, all at once, seized with tremendous universal spasms, bending the head and trunk in the form of a bow—but whether forward or backward is not stated. Mr. B. saw him an hour after the attack, and the spasms were then recurring every five

* Mr. Geo. Barr, Surgeon, Kelsyth. Edinb Journal, No. 71.

† Aretæus, with his usual terseness and forcible language, calls tetanus an *inhumana calamitas, injucundus aspectus, triste intuenti spectaculum, et malum insanabile*." Modern medicine, on this, as on very many other occasions, can boast of much more success than the ancient. Tetanus cannot now be called "*malum insanabile*," even were it more fatal than it is.
—Ed.

minutes. The neck was stiff and immoveable ; and many of the muscles, especially the pectorals, felt rigid. The jaws were firmly locked. Our author instantly bled him, *pleno rivo*, to the amount of 50 ounces ;* in about half an hour after which, the muscles of the jaw relaxed, and three fluid drachms of laudanum were exhibited. The spasms became less powerful and less frequent, having now an interval of half an hour. A drachm of laudanum was repeated after each spasm. At three o'clock next morning, the patient was again bled to 12 ounces ; the laudanum, combined with two grains of camphor, to be continued as before. The spasms now returned about once in the hour, and not nearly so severe as before. Throughout the whole of the second day the paroxysms recurred once an hour, the jaws being completely locked during each paroxysm. Bled in the evening to 20 ounces. Having vomited the tincture, four grains of solid opium were ordered to be taken after each spasm. A nitric acid blister was applied to the whole spine. The spasms now occurred every two or three hours. On the third day some strong purgative pills, and three 15 grain doses of calomel were ordered to be taken. Had seven stools through the day, having taken 45 grains of calomel. The spasms recurred this day every hour and half, and very severe. A drachm of solid opium was therefore given at once. In about twenty minutes the patient began to doze a little, but not to sleep—complained of giddiness, and some dyspnoea. In an hour and ten minutes he fell asleep, shortly after which, the breathing became slow and very laborious, the number of respirations being four in the minute. The patient having continued in this state about two hours, Mr. B. roused him, when he felt nausea, which was succeeded by full vomiting on taking some warm water. This produced much relief. *Fourth day.* No spasms since last night, except one paroxysm at 10 o'clock this forenoon. Mouth sore from the calomel. Venesection to 16 ounces, the pulse being 100 and full. *Fifth day.* No spasms—mouth very sore, and saliva flowing gently. From this time he became convalescent, and soon recovered completely.

We see in the above case that three powerful remedies were employed—venesection, opium, and mercury. We cannot therefore positively say which was the efficient medicine. Perhaps no one or two of them would have succeeded. The venesection prepared the way for the speedy operation of the opium and calomel. We have long been convinced that general and local (from the spine) bleeding, opium, and mercury, are the best means we possess of checking this formidable disease. These are the means indeed which have been employed of late years between the tropics, where tetanus is

* It appears from Celsus that Asclepiades was a great advocate for bleeding in tetanus. "Asclepiades utique mittendum sanguinem credidit." Celsus himself, among many other means, recommends cupping the spine, and then applying the actual cautery. We think this plan would probably be useful.
—Ed.

so prevalent. The dose of opium, in the present instance, we think was rather too large, though we are quite satisfied that in tetanus and some other painful diseases, such is the torpor or insensibility of the stomach, that opium and all other medicines may be taken in doses infinitely greater than the same patients would be able to bear in a state of health. Purgatives are useful auxiliaries in recalling sensibility to the ganglionic system of viscera, and thus lessening the quantum of irritation on the origins of the spinal nerves. All the phenomena, indeed, of tetanus would lead us to conclude that nervous irritation of a high degree is propagated to the spinal marrow; and that, upon a well known and universal principle ("ubi irritatio ibi fluxus,") we may next expect the vascular system to be drawn, sooner or later, into a morbid state. The irritation, however, may be so great, and the spasms so violent, as to destroy life without leaving traces of vascular derangement on dissection. In many instances these vascular alterations have been detected; and whether they are detected or not, there can be no doubt of the nervous irritation in the first instance, and indeed throughout the whole of the disease.

29. *Fractures of the Clavicle.** Every surgeon knows the difficulty of keeping the fractured extremities of the clavicle in coaptation. When this bone is broken, the internal portion is firmly fixed in its place by the costo-clavicular ligament, and by the opposite actions of the sterno-cleido and pectoralis muscles. It is therefore the external fragment which always becomes displaced. It is borne down by the weight of the arm and the action of the deltoid muscle, while it is, at the same time, drawn forward and inward by the pectoralis major, and thus carried under the internal portion, which forms an eminence over it. We all know that the figure of 8 bandage is very inadequate to the counteraction of the above circumstances. Desault invented an apparatus which appears to have been very successful in his hands, but not so in those of others after him. The plan of Mr. Charles Bell, by means of the double-headed roller and compress under the arm, seems better adapted to general application than that of Desault or Boyer.

"But, says Dr. Brown, as the force exerted to keep the external portion raised in contact with the internal, depends upon the short turns around the shoulder, a very slight stretching of the bandage will occasion it to be displaced; and unless the bandage be frequently reapplied, it cannot be retained in its situation.

"Take a single-headed roller, eleven yards long and three and a half inches broad,† and place one end of it a little forward of the

* A new mode of bandaging fractures of the clavicle. By Stephen Brown, M. D. of New-York. Amer. Med. Recorder, No. XVI.

† A bandage narrower than this will, of course, be found more convenient in cases of children.

axilla of the opposite side ; carry the roller from thence across the upper part of the chest under the armpit of the affected side, and around the body to meet the end, over which let it lap a little, and pin or sew it fast. Place a cushion in the armpit, as directed by Desault, which is to be attached to the bandage thus passed around the body by tapes, or, which is better, let it be sewed. The cushion being fixed, the surgeon seizes the patient's elbow, the forearm being bent to a little less than a right angle with the arm, and brings it forward, upward, and inward, pressing it closely against the body. Let the shoulder be sufficiently raised, so that the external fragment be carried up to its place, and the deformity entirely disappear. Let an assistant hold the elbow and forearm in this situation, while the surgeon brings the bandage down obliquely across the breast over the forearm nearly across its middle, passing it around under the elbow, and across the back obliquely upward to the lower part of the scapula of the opposite side. Here it should be pinned or sewed to that part which was first passed around the body ; then with a turn carry it over the shoulder of the same side, and down obliquely across the breast, as before, overlapping the first cast about two-thirds, and across the forearm, nearer the elbow than the first ; carrying it around under the elbow, and up across the back, to be fastened upon the preceding cast in the same situation where that was attached to the first. With a turn carry it over the shoulder, where it should nearly cover the preceding cast ; then down across the breast as before, overlapping the preceding fold as the second does the first. Four or five of these casts over the forearm and elbow are sufficient. Let the last two or three embrace and support the elbow, with such a degree of force as to keep the shoulder well raised. Fasten the cast which was last carried around to as many folds of the preceding ones as it will cover, just forward of the elbow, upon the forearm :—then with a turn carry it over the arm just above the elbow, across the back, under the axilla of the opposite side, and around and across the chest, to be attached to the folds upon the forearm, as before. Then with a turn overlap the first cast, and carry it around in the same manner.

“ Two or three of these casts are sufficient ; the object of which is to keep the lower extremity of the humerus closely in contact with the body, which by the aid of the cushion, keeps the shoulder outward.* The hand may be supported in a sling formed of the last extremity of the bandage, the last cast of which may be pinned

* In females, in order to obviate, as much as possible, any inconvenience by pressure upon the mammae, the casts which are carried over the humerus when they are brought under the armpit of the opposite side, instead of being continued directly across the breast to the lower part of the humerus of the affected side, may be carried obliquely upward toward the neck, upon the casts that were passed over the shoulder ; to which let them be fastened. Then with half a turn continue down upon the forearm near the elbow, and fasten again ; then with a turn carry it over the lower part of the humerus, &c. &c.

to the folds upon the back, and the end brought over the shoulder to the wrist ; or, attached to the folds upon the breast, and the end passed around the wrist and hand once or twice, and fastened again.

" Before applying the bandage, a cushion of several folds of soft linen should be laid upon the shoulder to prevent irritation, over which the folds of the bandage should rest. To answer the same purpose, the arm and forearm may be covered with a layer of soft linen, and a few folds of the same placed in the armpit of the opposite side.

" The bandage being applied, let the casts, where they overlap, be sewed to each other in every situation where the bandage is most likely to be deranged. This is particularly necessary where they cover the arm and forearm.

" This mode of bandaging will be found to possess equal facilities with the most approved plan of reducing fractures of the lower extremities."—*Medical Recorder*, No. xvi. p. 657.

30. *Protecting and Modifying Influence of Vaccination.** The *unqualified* protection of the vaccine process against variola, is now properly given up by all unbiassed practitioners. It is far better for either a man or a medicine, that his or its character and value should be precisely estimated and ascertained, than that either should be exaggerated above, or depreciated below, the standard of truth. Vaccination, like all other things in this world, must submit to the imputation of imperfection. Fortunately for itself and for mankind, it can admit this drawback, and still hold up its head with honour. It may be said of vaccination that, in most instances, it stems variola entirely—and in all, or nearly all instances, where it fails in preventing, it so modifies the variolous disease as to leave it scarcely cognizable as the same affection. Is not this enough ?

Among the now innumerable proofs of the above position, may be found some cases and facts brought forward by Dr. James Reed in our respected cotemporary of Edinburgh, for April last. A stranger with variola from Glasgow fell ill at Kilmarnock, and died on the 13th day. The contagion issued from this focus, and its steps were equally well marked and distinctly traced. Its first attack was on a vaccinated girl. " After a smart fever, the vesicular eruption did make its appearance ; and moderate chicken pox, ending safely about the eighth day of eruption, was the consequence." Precisely opposite to the house where the stranger died, a mother and her infant at the breast (both unprotected) caught the contagion. In the mother, severe and confluent small-pox terminated fatally on the 10th day of the eruption. The infant escaped, but bears the permanent marks of variola. The husband of this woman, (himself

* Dr. James Reed, of Kilmarnock. *Edinb. Journal*, No. 71.

inoculated) had assisted the stranger above alluded to, and thus carried home the contagion to his family, though it made no impression on himself. A little farther on, in the same side of the street, two vaccinated children took the disease. The eruption answered precisely to the description of "modified small-pox." The recovery of these infants was rapid. Curiosity (foolish curiosity) led a young man, who had been early vaccinated, from another village a mile distant, to visit the stranger who died. He caught the modified pox, which terminated safely in six days. In another part of the town a woman, inoculated in infancy, and bearing slight marks of small-pox in different parts of the body, had a vesicular eruption, (after a pretty severe attack of fever) at first on her face and temples, then on the arms, hands, lower limbs, and feet, but very partially on the body. The eruption on the face dried up about the fourth day, and soon scaled off. That on the extremities advanced slowly to maturation, increased in size, coalesced, and formed large and deep pustules, some of which were not dried up on the 12th day. This woman had inadvertently called at the house of the last-mentioned patient, and sat chatting with him for some time. She had two children, both vaccinated. Neither of them suffered from the mother's disease.

The above are the main facts of Dr. Reed's communication, and the inference to be drawn from them is too obvious to require a word. They go to the corroboration of the position laid down at the commencement of this notice. We agree with Dr. Reed that it is highly gratifying to think what a vast proportion, in the late epidemics, resisted the utmost exposure to the influence of variolous contagion. For one case in which vaccination failed in any measure to secure the constitution, ten have shown themselves invulnerable, even where the mischief seemed most concentrated. As for death from variola after vaccination, it is so rare as scarcely to be worth mentioning. Dr. Reed relates an instance of the *speedy* mode in which vaccination extends its protecting influence. A young man from Kilmarnock was going through the wards of the Royal Infirmary at Glasgow, in one of the side rooms of which, a child lay covered with small-pox. The youth, who had never been vaccinated, felt an involuntary shuddering at the sight of the disease; and in a day or two after his return from Glasgow, fell ill, and small-pox eruption came out in due time. At this moment it was ascertained that his nurse had never had the small-pox, or went through any protecting process. She was immediately vaccinated in both arms. The operation succeeded well; and although she was about the patient constantly during several weeks, in a situation peculiarly unpleasant, she escaped with perfect impunity. Finally, Dr. Reed expresses his conviction that small-pox, the varioloid disease, and varicella, are only different modifications of one and the same disease.

XII.

BIBLIOGRAPHICAL RECORD;

OR

Works received for Review within the Quarter.

1. Ad acutæ et chroniæ Splenitidis, in humilibus præsertim Italiæ locis, consideratæ, eidemque succedentium Morborum Historias Animadversiones. Auctore, STANISLAO. GROTANELLI, Philosophiæ, Medecinæ, et Chirurgiæ Doctore, &c. Florentini, 1822.

2. The Pathology of Fever; being the Subject of the Gulstonian Lecture, lately delivered at the Royal College of Physicians. By J. R. PARK, M. D. Fellow of the Royal College of Physicians. Octavo, pp. 161. London, 1822.

3. Further Observations on Strictures of the Rectum; with Remarks on the Opinions of some late Writers relative to the Situation of the Disease; and also, on Spasmodic Constriction of the Sphincter Ani; with a Translation of Part of M. Boyer's valuable Paper on that Complaint; accompanied with several Cases, and an Engraving. By W. WHITE, Member of the Royal College of Surgeons, London, and one of the Surgeons to the Bath Infirmary and Dispensary. Octavo, pp. 106, with an Engraving. London, 1822.

4. Travels into the Baga and Sooso Countries, during the year 1821. By PETER M'LACHLAN, Esq. Assistant Staff-Surgeon, and one of the Colonial Surgeons of Sierra Leone. Octavo sewed. Sierra Leone, 1821.

☞ *We shall be happy to see Mr. M'Lachlan's promised work on the medicine and medical topography of the countries through which he passed, with so much credit to his personal courage and scientific acquirements.*

5. A Manual of Anatomy; containing Rules for Displaying the Structure of the Body, so as to exhibit the elementary Views of Anatomy, and their Application to Pathology and Surgery: to which are added, Observations on the Art of Making Anatomical Preparations. By JOHN SHAW; being an Outline of the Demonstrations delivered by him, to the Students in the School of Great Windmill-Street. Second Edition, 8vo. pp. 444, with Plates. London, 1823.

☞ *After what we have said of the first edition of this work in our Seventh Number, it is unnecessary to do more than announce a new and improved edition at the present time.*

6. An Address, delivered in the Guildhall at Plymouth, on the 6th day of December, 1821, at the First general Meeting of the Subscribers to the Plymouth Eye Dispensary. By JOHN BUTTER, M. D. F. L. S. Octavo. Plymouth, 1822.

☞ *The general utility of such institutions is here well advocated, and the objections to them overruled.*

7. An Account of the new Institution in Edinburgh, for the Application of Vapour, Mineral Water Baths, &c. No. 8, Broughton-Street, (Edinburgh,) with the History of the successful Cases that have occurred there. Octavo, pp. 71. Edinburgh, 1822.

☞ We are glad to observe that so very useful an institution is patronized in the Northern Metropolis. The proprietor is evidently taking the surest means of obtaining ultimate and permanent success. The application of the baths is under the guidance of medical science, and no system of popular delusion appears to enter into the economy of the institution. We hope the Faculty will strenuously support it.

8. Observations on the Influence of Habits and Manners, National and Domestic, upon the Health and Organization of the Human Race;—and particularly on the Effect of that Influence as it relates to the present State of English Females, in the higher and middle Classes of Life. By RALPH PALIN, M. D. One Volume, 8vo. pp. 297. London 1822.

9. The Medical Practitioner's Pocket Companion; or a Key to the Knowledge of Diseases, and of the Appearances that denote Recovery or Danger: being an Alphabetical Arrangement of Symptoms, with their various Indications. Duodecimo, pp. 32, small print. London, 1822.

☞ This little work has the merit of novelty, and may not be devoid of utility, when bound up with Thompson's *Conspectus*, with which it is printed uniform. We cannot do better than give a single specimen, which will convey a very good idea of the nature of the work. D stands for "denotes," and P, "prognosis."

"FÆCES, chronic discharge of liquid, indigested aliment resembling chyle.—
D. *Cæliaca passio*.

"—— frequent discharge of loose and watery, sometimes mixed with blood.
D. *Diarrhæa*. (Without fever generally, but sometimes with more or less fever of the inflammatory kind.)

"—— frequent mucous or bloody stools, accompanied with much griping, and followed by a tenesmus, the alvine fæces being for the most part retained; fleshy or sebaceous lumps are sometimes discharged. (Attended with fever of the nervous and putrid kind, and considerable prostration of strength.)—D. *Dysentery*.

"—— highly acrid and obstinate discharge of, resembling dysentery, and corroding all the parts they touch; attended with frequent convulsions, and fixed pains.—D. *Cancer in the intestines*.

"—— purulent, preceded by throbbing pain in some part of the abdomen, with shivering and fever, and exacerbation of the symptoms in the evening.—D. *Abscess in the intestines*.

"—— accompanied with discharge of pieces of membrane.—D. *Abscess in the intestines*.

"—— accompanied with pus.—D. (Sometimes) *Abscess of the Mesentery*.

"—— with an offensive, putrid smell, the food passing crude and undigested.
D. *Diseased Liver*.

"—— pale and whitish.—D. *Stones in the gall-duct. Jaundice*.

"—— blackish, and very offensive, often passing off insensibly.—D. *Putrid fever*.

"—— involuntary discharge of.—D. *Compression of the Brain*.—D. *Great danger* (in various diseases.)

- " **FÆCES**, voided unconsciously (in hydrocephalus).—P. *Approaching death.*
- " — (in jaundice,) whiteness of, changing to a more natural colour.—P. *Favourable.*
- " — (in splenalgia,) discharge of black bilious.—P. *Favourable.*
- " — (in cholera morbus,) continual urging to discharge.—P. *Fatal.*
- " — (in fever,) scybala brought off with little straining or colic.—P. *Favourable.*
- " — liquid, frothy, watery, with little colour or smell.—P. *A tedious disease.*
- " — a free and copious discharge of, highly fetid and bilious (in the beginning of the disease).—P. *Rather favourable.*
- " — (in putrid fever,) ichorous and fetid.—P. *Highly dangerous.*
- " — (in bilious fever,) cadaverous.—P. *Approaching death.*
- " — (in hectic,) highly liquid and offensive.—P. *Extreme danger.*
- " — small, black, pitch-like.—P. *Danger.*

10. American Medical Recorder, No. 17, for January, 1822.

¶ *We are most happy to learn, that the circulation of this respectable transatlantic cotemporary already amounts to 1750—no mean circulation for a medical journal in any country—and not now to be attained by ordinary merit.*

11. Lettera di GIACOMO CLARK, M. D. della Università di Edimburgo, Al. Ch. Sig. Professore TOMMASINI, uno Dei 40 della Società Italiana ec. Intorno Alle sue Osservazioni sulla Scuola Medico-Clinica di Edimburgo, contenute nel suo Discorso del Metodo di curare dell' insegnamento Medico-Clinico, &c. Osservati in Inghilterra, pronunciato nella Clinica Medica della Pontificia Università de Bologna, il 26 Marzo, 1821. Roma, 1822.

12. Essays Physiological and Practical. By JAMES CARSON, M. D. Physician in Liverpool. Octavo, sewed, pp. 65. 1822.

¶ *The first two Essays are republications, and have been noticed before in this Journal. The third Essay is on Lesion of the Lungs, and contains a Proposition for the Cure of Phthisis, not before suggested by any author. It will be found in another part of the Journal.*

13. A Pharmaceutical Guide ; in two Parts. Part I. A Latin Grammar, in which all the Rules are illustrated by examples, taken from the London Pharmacopœia. Part II. An Interlineary Translation of such Formulæ in the London Pharmacopœia, as have been found difficult to be comprehended by some young Medical Students. To which is affixed, a Vocabulary of Words most frequently employed in Prescriptions ; with Examples of their Uses. By the Author of the Student's Manual. One small Volume, duodecimo, pp. 92. London, 1822.

14. A Case of Transverse Fracture of the Patella, in which, perfect Osseous Union was procured ; with Observations. By GEORGE FIELDING, Member of the Royal College of Surgeons in Edinburgh ; one of the Surgeons to the Infirmary, to the Lying-in-Charity, and to the Female Penitentiary in Hull. Octavo, sewed, pp. 10. 1822.

15. The new Medico-Chirurgical Pharmacopœia ; being a Selection of modern Formulæ, from the private and hospital Practice of the most eminent Members of the Profession, in Europe and America : for the Use of Surgeons and Surgeon-Apothecaries. By a Member of the Colleges of Surgeons, of London and Edinburgh. Small Octavo, pp. 148. Price 5s. 6d. boards. London, 1822.

16. Bulletins de la Société d'Emulation de Paris, et Tablettes Medico-Chirurgicales. Rédigée par M. M. BRICHETEAU ET VILIERME. January, February, and March, 1822.

☞ *In exchange for MEDICO-CHIRURGICAL REVIEW.*

17. Letters to the Honourable the Managers of the Royal Infirmary, occasioned by an Extraordinary Resolution they have lately entered into. By ROBERT LISTON, Surgeon, &c.

"Non metuunt leges, sed cedit viribus æquum."

☞ *Page 207 of Periscope.*

18. A System of Surgical Anatomy. Part I. On the Structure of the Groin, Pelvis, and Perineum, as connected with Inguinal and Femoral Hernia ; Tying the Iliac Arteries ; and the Operation of Lithotomy. Illustrated by Nine copper-plate Engravings. By WILLIAM ANDERSON, Licentiate of the Royal College of Surgeons in Edinburgh, and Lecturer on Surgical Anatomy in New-York. Quarto, pp. 200, with Nine coloured Plates. New-York, 1822.

☞ *We return the author our thanks for this volume, and have put it into the hands of one of our surgical conductors for early notice.*

19. Morgagni's Epistles on the Seat and Causes of Diseases ; abridged, with copious Notes ; by WILLIAM COOKE, Member of the Royal College of Surgeons, and one of the Secretaries to the Hunterian Society. In 2 Vols. thick octavo, pp. 500 each volume. Longman and Co. 1822. (First volume received.)

20. Some Observations on the present Practice of Inoculating Children for the Small-pox, in the Neighbourhood of Chichester and Bognor. By JOHN CONOLLY, M. D. Member, and late President, of the Royal Medical Society of Edinburgh, &c. Octavo, sewed, pp. 29. 1822.

☞ *A well-written appeal in favour of vaccination.*

21. An Inquiry into the Comparative Forces of the Extensor and Flexor Muscles, connected with the Joints of the Human Body. By JULIUS JEFFREYS, Member of the Royal College of Surgeons in London. Octavo, pp. 51. London, 1822.

MEDICAL INTELLIGENCE.

“Sparsa Colligens.”

1. ROYAL COLLEGE OF PHYSICIANS.

This venerable institution, founded by LINACRE, who first brought ancient letters into this country,* chartered by our Eighth HENRY—and endowed by the immortal HARVEY, after he had expounded his splendid doctrine of the circulation within its precincts, is, we are happy to learn, about to be translated from the smoke and fog, and gloomy solitude of Warwick Lane, to the “verge of the palaces,” and the clearer atmosphere of PALL-MALL-EAST. The Crown has bestowed a piece of ground on the College whereon to erect an edifice worthy of the British Metropolis, and of the most dignified and enlightened faculty of medicine in Europe. His Majesty has, moreover, ordained, that the president of the College shall, in future, hold, *ex officio*, the rank and situation of physician in ordinary to His Majesty’s person—a distinction, as may be readily perceived, of the utmost importance to the college, and likely to prove a stimulus throughout every ramification of its members. Of the terms in which this mark of Royal favour was conveyed, (in the handwriting we have heard of the King himself,) some idea may be gathered from the following official and gazetted answer to His Majesty’s gracious communication.

To the King’s most excellent Majesty.

“SIRE,

“We, the President, Elects, and Fellows of the Royal College of Physicians, humbly approach your Majesty with the most grateful acknowledgments for the mark of Royal favour with which your Majesty has been pleased to distinguish us, by an order written and signed by your Royal hand, addressed to Sir Henry Halford, Bart. our present president, commanding him to declare to the College assembled, your Majesty’s Royal will and pleasure, that every future president of the College of Physicians, for the time being, shall hold the office of one of your Majesty’s physicians in ordinary.

“We associate, Sire, with this mark of your Royal kindness, the pleasing remembrance of the circumstances of our original foundation by your Majesty’s illustrious predecessor, King Henry VIII. and dare to presume, from so gracious a proof of your confidence in us, that your Majesty entertains a favourable opinion of our institu-

* “Thomas Lynacrus, Regis Henrici VIII. Medicus; vir et Græcè et Latine, atque in re medica longe eruditissimus. In hæc urbe Collegium Medicorum fieri sua industria curavit, cujus et præsidens proximus electus est. &c.—*Epitaph written by Dr. Caius*

tions and discipline, as well calculated to make our profession respectable in this country, above what it is in any other part of Europe, and most capable of forming a physician, worthy to be placed near the sacred person of the King.

To our president, Sire, we intrust this expression of our dutiful thanks, our loyalty, our attachment, and devotion to your Majesty ; and we pray that no weight of cares which your Majesty's great office imposes upon you, may prove injurious to your health, and that Providence in his infinite goodness, may continue to watch over a life so highly important to the welfare and happiness of your kingdoms."

We rejoice exceedingly to see Royal favours descend on the Colleges of Physicians and Surgeons in this country. It requires but little acquaintance with men and things to perceive, that honours or dignities conferred by a sovereign or legislature, whether on public bodies or private individuals, prove powerful inducements to those actions and that conduct which maintain or ennoble the dignities so conferred. To be distinguished by others, and especially our superiors, is no mean stimulus to the effort still farther to distinguish ourselves.

We profess ourselves to be friendly to those institutions which prescribe a regular and even a difficult path to the *SUMMI HONORES* in medical science. The dreadful effects which have resulted in France, from rendering physic and surgery accessible to the very dregs of society, are well known ; and we have only to refer to the oration of M. Richerand himself, before the faculty of medicine of Paris,* for confirmation. We sincerely hope, therefore, that the colleges at the head of medicine and surgery, in Great-Britain, will zealously guard the portals of science from the intrusion of those whose qualifications or moral character might sully the lustre of a profession now standing deservedly high in the estimation of all classes of society in this country. The rank, talents, and liberality of those illustrious individuals who at present preside over the institutions in question, are sufficient guarantees for that faithful and honourable discharge of their high and important functions which may at once reflect lustre on themselves and confer a benefit on mankind.

2. *Nux Vomica*. A patient had a paralytic affection of one side for some years. The *nux vomica* (in doses of 25 grains of the powder, three in the 24 hours) was given by Dr. Birkbeck, with the effect of producing violent contractions of a painful and involuntary nature, in the muscles previously paralyzed. The dose was therefore reduced to fifteen grains, which agreed well with the patient, and the paralysis was apparently cured.

Many years ago, Dr. Marcet treated a patient in Guy's Hospital

* See No. 4 of this series, p 771

(who had been paraplegic for several years) with the *nux vomica*. The patient so far recovered under this treatment, as to be able to walk about tolerably well. The same remedy, however, was tried by the same physician in two or three other instances of a similar kind, but without success.

Dr. Baillie has remarked that paraplegia is perhaps very often dependent on disease in the brain. This remark has been confirmed, or at least corroborated, by some cases of the kind which fell under the observation of Mr. Henry Earle, in which there were, from the beginning, some affections of certain nerves of sense, originating necessarily in the brain, and where, in process of time, the upper extremities became paralytic, and finally dissection showed the seat of disease to be in the brain.

3. *Cubebæ and Capivi*. We have found a combination of these two medicines very useful in the earliest stage of gonorrhœa. Say an ounce of the *capivi* and four drachms of the *cubebæ* powder, in an eight ounce emulsion to be taken in two days.

4. *Sloughing Chancre*. A gentleman had a sloughing chancre—that is, a chancrous ulceration assuming a sloughing appearance, and rapidly spreading over the glans penis. In 48 hours one-third of the glans was destroyed. Local bleeding, purging, fomentations, and the strictest antiphlogistic measures had no effect in arresting the alarming progress of the disease. An eminent surgeon saw the patient. He advised a rapid introduction of mercury, so as to bring on ptyalism as quickly as possible. By extensive frictions, the mouth was made sore in 36 hours. That instant the sloughing ulceration ceased, as if arrested by a charm. We know this treatment is not according to orthodox canons; but it has since the above case, been tried in several others, and with similar success.

5. *Crying of the Fetus in Utero*. This curious physiological fact (if it be one) is as well authenticated as any thing supported on human testimony—at least medical testimony, can be. It has been recently conveyed with its documentary evidence, to one of the first physicians in London, and by him communicated to the Medico-Chirurgical Society. The circumstance took place in Prussia. A lady, during pregnancy, had experienced some distresses of mind, and had had several discharges of the liquor amnii. In the eighth month of pregnancy while in bed; and while several of her friends and relations were supping in her bed-room, the cries of a child were distinctly heard by all present, under the bed-clothes. The midwife being one of the party, and thinking that the child was suddenly born, desired the company to leave the room immediately, and the physician, who was in the house, to be summoned up. The physician was in time to hear the cries also, which were now unequivocally distinct, in consequence of the bed-clothes being raised. The os uteri was examined, but no dilatation had yet taken place. The cries were now several times reiterated, and then ceased. La-

hour came on a few hours afterward, and the child was delivered ; a considerable quantity of liquor amnii following the expulsion of the fœtus. The infant was very weak, and died a few hours afterward.

An explanation has been attempted on the supposition that when the waters escaped, previously to this extraordinary event, air had entered the cavity of the uterus, and thus enabled the fœtus to exercise its vocal powers at a premature period. But such explanation is invalidated by the considerable discharge of liquor amnii at the birth of the child. In fine, notwithstanding the circumstantial evidence and the respectability of the parties concerned, we are forced to withhold our belief of the fact, or rather of the assertion above detailed.

6. *Laurel Water.* This medicine, which is far more certain in its effects and imperishable in its nature than prussic acid, is coming into use in the Metropolis, as it has long been on the Continent, in febrile and inflammatory affections, where farther bleeding is deemed unsafe. It has also been successfully given in puerperal fever. It is made by distilling two drachms of the fresh laurel leaves chopped, with four ounces of water, recommitting the distilled water twice afterward on the same quantity of fresh leaves, and making ultimately four ounces of the menstruum. From thirty to sixty minims of this is given every four or six hours, till a completely sedative effect is produced on the system, and the febrile and inflammatory symptoms are subdued.

A physician-acconcheur of considerable practice in this metropolis, has, for nearly two years past, been in the habit of treating puerperal fever, after one or two copious bleedings, with digitalis in large doses—two or three grains every three or four hours, till the increased action of the vascular system is completely quelled. We recommend a trial of this plan.

7. *The late Dr. Parry.* The following medical gentlemen personally attended the funeral of the late Dr. Parry, and subscribed to erect a monument to his memory. DOCTORS—Sir G. Gibbs, Haygarth, Crawford, Davis, Barlow, Muttleburry, Robertson, Langworthy, Fisher, Mogg. SURGEONS—Tudor, Norman, Day, Geo. Norman, Soden, Brown, Carn, Kitson, Hay, Plinn, Pendrill, Combs, Turner, Roe, Spry, Goldstone, Crook, Anderson, Long, King, Sloper, Mayhew, Crosbie, Williams, Grant, Walker, Gray, G. Goldstone, Godfrey, White, Day.

8. *A simple Argument not always inconclusive.* A learned and ingenious cotemporary (in the Quarterly Journal of Foreign Medicine) has laboured hard to prove the nonexistence not only of spirit but of MATTER also. "We flatly and fearlessly deny the existence of a certain thing which is called *matter*, and another certain thing which is called *spirit*, and we call for the proof of their existence from those who use the names, and who talk about what we affirm

to be *nonentities*.”* A young gentleman on reading this passage, observed to a brother student that, “as for the existence of *spirit* he could not say; but if the learned editor had been at St. George’s Hospital that morning, he would have seen nearly a pint of *matter* discharged by Mr. Gunning from a large abscess.”

9. *Vapour Baths*. Mr. Seaman, (5, Downing-Street, Westminster) has fitted up the humid sulphur vapour, and other baths, at his residence in Downing-Street, and we can safely recommend them wherever they are deemed advisable by the medical attendant.

Widow’s Fund of Army Medical Officers.

The anniversary of this most excellent Institution was celebrated on the 15th of May, by a public dinner at the Thatched-House Tavern, where nearly one hundred gentlemen sat down to a sumptuous repast. Nothing could exceed the harmony, order, hilarity, and decorum, that prevailed. The philanthropic principle that first gave origin to the institution, seemed to pervade the whole of this assemblage—a principle, by the by, which surely does honour to human nature, since it induces us to make sacrifices in *this world*, the benefits accruing from which, can only be enjoyed, *and that by others*, when we are in *another world*.

Among the distinguished professional characters which we observed on both sides of the president, (Dr. Ferguson,) were, Sir Henry Halford, Dr. Baillie, Sir James M’Grigor, Sir Gilbert Blane, Sir E. Home, Sir M. Tierney, Dr. Cooke, Dr. Chambers, Mr. Keate, Mr. Guthrie, Dr. Gordon, Dr. Burnett, Mr. Brookes, Inspector Gunning, Dr. Borland, Dr. Uwins, Dr. Forbes, Dr. Vetch, Dr. Gordon Smith cum multis aliis.

11. On the 6th Februry, was held the third Anniversary of the Hunterian Society, when the following Members were elected Officers for the ensuing Year.—*President*, Benjamin Robinson, M. D. —*Vice-Presidents*, William Babington, M. D. F. R. S. B. C. Pierce, M. D. Thomas Callaway, Esq. John Dunston, Esq.—*Treasurer*, B. Robinson, M. D.—*Secretaries*, J. T. Conquest, M. D. William Cooke, Esq.—*Council*, Sir William Blizard, F. R. S. H. Greenwood, Esq. Z. Newington, Esq. J. C. Knight, Esq. R. Dunglison, Esq. J. Miles, Esq. J. Roberts, Esq. Eusebius A. Lloyd, Esq. M. Gosset, Esq. H. Hawkins, Esq. H. Johnson, Esq. and J. Leadham, Esq.—And on the following day, the Members and their Friends dined together at the London Tavern, on which occasion, in consequence of the unavoidable absence of the President, Dr. Babington took the Chair.

* Quarterly Journal for April 1822, p. 256

HUNTINGTON & HOPKINS, HARTFORD;
HOWE & SPALDING, NEW-HAVEN;
AND
J. V. SEAMAN, NEW-YORK,
ARE PUBLISHING A NEW PERIODICAL WORK, ENTITLED
THE
AMERICAN MONTHLY JOURNAL
OF
Medicine.

Conducted by an Association of Physicians and Surgeons.

A concise analysis of cotemporary medical journals published in the United States will, it is thought, prove acceptable to most of our readers—by furnishing those who possess the original works with a *general index*, and supplying a deficiency in the libraries of those who possess them not.

Our object will be to present a comprehensive view of the Medical and Physical Sciences, and by gleaning from foreign journals whatever is valuable, to render our own both useful and instructive. But in directing our attention chiefly to European Medicine, the labours of our brethren at home will not be overlooked. A very limited space will be assigned to those single and extraordinary cases which too much abound in the periodical journals of the day, and, as has been justly remarked, tend more particularly to puzzle and distract the young practitioner; and a more ample range will be given to observations which are the result of long and extensive experience, and which have for their object the correction of error, and the elucidation of truth. In conformity with the above plan, and at a very moderate expense, the readers of this journal will be furnished with a concentrated record of medical facts, a concise review of medical opinions, and a valuable repository of medical improvements. Such a work must be peculiarly useful to those who have not funds to procure, nor leisure to peruse the great mass of publications, which appear at regular intervals to enlighten or amuse the physicians of Europe. It must be peculiarly welcome to those practitioners, who, in the discharge of the arduous duties of their profession, have little intercourse with their professional brethren, and find it extremely difficult to keep pace with the progressive improvements of medicine and surgery. To those also, who are anxious to obtain the earliest medical intelligence, the publishers of a *Monthly Journal* may look with confidence for support.

This Journal will be published in monthly numbers of 64 pages each, making two volumes annually of 384 pages.

The price to subscribers will be two dollars a volume;—the subscription for the year to be paid on delivery of the sixth number.

1844

THE
Medico-Chirurgical Review,
AND
JOURNAL OF MEDICAL SCIENCE.
(Analytical Series.)

"Nec Aranearum textus ideò mellor, quia ex se fila fingunt; nec noster villior, quia ex alienis libamus, ut apes."

VOL. III.] SEPTEMBER 1, 1822. [No. 10.

I.

An Inquiry into the Opinions, ancient and modern, concerning Life and Organization. By JOHN BARCLAY, M.D. Lecturer on Anatomy and Surgery; Fellow of the Royal College of Physicians, &c. &c. of Edinburgh. Octavo, pp. 542. Edinburgh, 1822.

OUR readers will not accuse us of much propensity towards metaphysical disquisitions. Our reasons for abstaining, in general, from such lucubrations, are founded on a conviction that, in all investigations respecting the *nature* of life, and the *destiny* of the soul, the fool and the philosopher—the cobbler and the craniologist—the merry-andrew and the metaphysician, start upon perfectly equal terms—with this exception—that the creed of the philosopher is always more absurd than that of the fool. The truth of this position, paradoxical as it may appear, will, we apprehend, be made abundantly manifest in the course of this article. Discussions on life and organization have, of late, occupied so much the attention of the public, that we are reluctantly drawn into the vortex—yes, a *vortex* or eddy, *off* the general stream of medical science, in which, however long we whirl about, we can never make one foot of progress. We shall invariably come back to the point from whence we started—few of us, we fear, made much better or wiser during our circumgirations! We sincerely wish indeed, that physicians and physiologists, at least, had confined their researches to the laws which govern and the diseases which assail the human body, leaving the mortality or immortality of the soul to philosophers, metaphysicians, and divines:—or, if they *did* enter into the investigations of mind, that they would acknowledge their own ignorance when their faculties could go no farther, instead of dogmatically pronouncing in the negative, on doctrines generally received

by mankind, and which appear necessary to the welfare of society, as well as the peace and happiness of individuals. No human being on this earth ever had, or ever will have, an atom of proof, (independent of Revelation,) respecting the nature and ultimate destiny of the soul. Those, therefore, who deny its future existence, are just as dogmatical and presumptuous as those who maintain it—with this difference, that they broach a doctrine repugnant to the best feelings of mankind, and utterly subversive of all those checks and restraints, which reason, religion, and morality would impose on the turbulent passions of our nature. If we are placed here irresponsible to any other tribunal than those of human creation, we must be dolts indeed to curb even our most vicious propensities, farther than what may just keep us clear of the gallows! Nay, if the indulgence of a crime be thought to convey more pleasure, than a swing at Tyburn pain, we know not on what principle the Materialist should hesitate to suffer the one, for the enjoyment of the other. In fact, this is the doctrine precisely, on which the most abandoned of the human race act every day;—it is the doctrine which is too often instilled into the tender minds of medical youth along with their physiological knowledge—it has been publicly taught in our schools—boldly pronounced in our orations—and fearlessly published in our books! How is this to be remedied? Certainly not by attempting to prove the truth of contrary doctrines: for, as we said before, we have no proofs, pro or con, but in REVELATION, and this will not be listened to by the Materialist. The only remedy, in our humble opinion, is that which Dr. Barclay has adopted—namely, an exposition of the absurdities, contradictions, and chimæras, of the philosophers themselves. It will be seen in this exposition, too, that the reigning doctrines of the day, among our modern philosophers, are nothing but new versions—indeed, generally but mere repetitions of the visionary speculations engendered in the brains of their predecessors, even from the earliest ages. Stripped of their novelty, and devoid of solid foundation, as all such speculations must ever be, these doctrines will, we hope, gradually sink once more into oblivion, and men, feeling their own ignorance, and seeing the presumption of these illuminati, will come back again to the sober path of reason, and the steady light of religion and virtue. It is lamentable, however, to think that some men, whose talents, genius, and acquirements, might have enabled them to diffuse the blessings of science and the charms of literature over a grateful land, have chosen, with fiend-like satisfaction, to shine only to mislead—to flash only to destroy. “Their beams,” says an able writer, “are a beacon set up by

the Genjus of Evil—a beacon that would warn us *from* that which is *safe*, only to decoy us *to* that which is *dangerous*—having a false light to amuse, a syren to allure, a Circé to intoxicate; lest we should perceive, that the fatal coast is covered with wrecks.”* Under these circumstances we hope we shall be excused, if not commended, for dedicating a very considerable portion of our present number to the review of a work, which is calculated to improve the humble by the profundity of its erudition; and repress the presumptuous by the poignancy of its satire—to strengthen the good man’s belief in a future state of existence, and weaken the sceptic’s overweening confidence in the powers of his own unassisted reason.

The analysis of a work like this, is not an easy task; and we are sure the worthy and learned author will excuse us, if we frequently endeavour to convey the spirit of a passage in our own language, rather than in an extract, since habit has, we think, given us the power (a very humble pretension) of sometimes lessening the number of words, without weakening or obscuring the sense.

In a short preface to the work before us, Dr. Barclay informs us of the reasons which gave rise to his present inquiry. These were, the differences of opinion which exist respecting the nature of man—some thinking that such a mechanism may have been produced without a divine constructor—others not. The object of the present work, therefore, is to state the arguments on both sides—to examine their legitimacy and force—to offer his own opinion—and then leave the reader to judge for himself.

As young men, our author justly observes, are naturally inquisitive respecting the laws of organization, and are frequently led to form hypotheses, on slender grounds of information, an inquiry like this may be useful to them, by showing them what ingenious and learned men have written on the subject. It may probably tend to moderate the excesses of vanity, and prevent them from betraying their ignorance, by publishing as new, “opinions which have repeatedly been published before—have repeatedly been obsolete—been repeatedly revived—and repeatedly become obsolete again.” On this subject, he observes, few original opinions or arguments upon either side, have been advanced since the days of Lucretius, or even of Aristotle. The novelties are chiefly those of expression or manner, with some attempts at illustration by aid of the microscope and chymistry; but the im-

* Coulton’s Remarks on the Talents of Lord Byron.

pulling motives, the leading opinions, the chief arguments, have scarcely suffered any change through a series of centuries.

The work is divided into four chapters, each subdivided into numerous sections. The first chapter contains the philosophical and popular opinions of the ancients concerning the nature and variety of animating causes, and the principal arguments employed to prove that these causes originate in matter:—the second chapter gives an account of some very vague and general terms employed in physiological investigations:—the third is on the opinions of those modern physiologists who ascribe the phenomena of life to mechanism and the effects of chymical affinities:—the fourth exhibits the opinions of some distinguished ancients and moderns who have ascribed organization and the other vital phenomena to an internal animating principle.

CHAP. I. Sect. 1. In all languages there are terms to express those two remarkable states of organized bodies—the *living* and the *dead*. The clown can distinguish these as clearly as the chymist. There is a kind of intermediate state, in which plants and animals are occasionally, and their seeds and eggs generally, found. In these cases the obvious functions of life are partially or totally suspended—but the suspension does not, as in the dead state, arise from derangement of the system—it wants only some auxiliary agents, as heat for instance, to bring the powers into play. The living state is the most remarkable of all, and has naturally excited the attention of philosophers in every age and country.

Sect. II. This exhibits a very summary view of ancient opinions respecting vital phenomena. The Greeks, in general, ascribed these phenomena to the *psyche*—in Latin, *anima*—in English, *soul*, or vital principle. Their opinions, however, were very various. Democritus, Epicurus, and the Stoics, thought it corporeal, but could not agree as to its substance. The Stoics asserted that it was warm ignited air—Hippo, that it was water—Democritus, that it was fire—Heraclitus, that it was a vapour or exhalation from the body!

The notions of those who believed the soul to be incorporeal, were, if possible, more absurd than those of the Materialists. Thales maintained that it was always in motion, and itself the cause of motion—Pythagoras, that it “was a self-moving monad”—Plato, that it was something conceivable only by the understanding, moving according to harmony—Aristotle, that it was a fifth essence or element distinct from any of the other four—others, that it was an

emanation from one universal soul, or anima mundi. It is needless to load our pages with the doctrines of transmigration and the plurality of souls—as the opinion of Plato, for instance, that there was a soul for the belly, another for the chest, and a third for the head. We shall therefore be very concise with the *third section*, on different souls in the same body. This opinion became very early prevalent. Empedocles gave a rational and sentient soul to every animal—the first derived from the gods, the second from the elements. The vulgar creed that ghosts or apparitions are sometimes seen near the place where the body lies, is well known. Lucretius, though he admits the existence of these *simulacra*, asserts that they are mere pellicles or membranes cast off from the surfaces of bodies, like old sloughs from grasshoppers.

“Quæ, quasi membranæ summo de corpore rerum

“Dereptæ, volitant ultro, citroque per auras.”

This is a pretty early specimen of the credulity of Sceptics.

• *Sec. IV. Pre-existence of Souls.* The notion of a *future* existence, however it may have got originally into the mind, seems, from the very beginning of the human race, to have constantly followed them wherever they emigrated or settled—nay, it even seems to have sprung, as it were, spontaneously, in every soul the least elevated above that of a brute. The idea of a *pre-existence*, however, has been limited chiefly to contemplative minds engaged in philosophical research. It occurred to Plato, who supposed the soul to be different from the body, and its innate ideas but the reminiscences of former impressions. It occurred to Pythagoras and the Eastern sages, who believed in transmigration; and it occurred to all who believed that substantial entities are eternal, and that thought and sensation are not to be considered as the accidents of matter.

Sec. V. Future Existence. The opinions among the ancients, respecting this state, were almost without number. Some doomed the soul to wander about without a body; but as that state was difficult to conceive, it was generally allowed some kind of tabernacle, or at least some kind of form. Thus equipped it was sent to the clouds—to the stars—to happier regions above—to regions in the bowels of the earth—or through other animals, in a series of transigrations. Such were the various opinions of the ancients concerning the soul or vital principle. We do not conceive that these opinions make either for or against the existence.

present or future, of a soul. Those who would deny its existence because those who believe in it are not agreed in opinion, might, upon this principle, reject almost every branch of philosophy.

Sec. VII. Organism. All opinions respecting the vital phenomena have rested on one of two bases—a certain organism of the materials of which the visible structure is composed—or a principle totally distinct from matter, receiving a distinct appellation in all languages.

The observations and reasonings which lead to organism or materialism, say its supporters, are not only natural, but the conclusion almost unavoidable. To what do we owe the difference of sounds proceeding from the flute, the violin, the harp, but to difference of structure—to what can we attribute the difference of functions in the animal system, as seeing, hearing, smelling, but to differences of structure in the organs by which they are displayed?

An egg, say they again, does not exhibit any thing analogous to vital phenomena. The eye cannot trace in it any thing but an organized structure. In this state, regulate the temperature so as to prevent the derangement of its parts, and it will continue for months or years in the same inert condition. But after these years apply the degree of heat which the mother communicates while hatching, and the embryo within will begin to grow, to move, to live—and at last will exhibit all the instincts, appetites, and passions belonging to the species that first gave it birth. Observe, say they, the swallow or other hybernating animal. It grows torpid and apparently dead in the winter. On the return of warmth we see it begin to move, to live, to seek a mate, and propagate its kind. What is there here, they ask, but organism and heat? If there be any other principle, who is the man that has seen it, heard it, touched it, or tasted it? No man. All other causes, then, are merely imaginary. After seeing what we have seen, let us remain content with the obvious causes, and leave enthusiasts to hunt after mysteries, or indulge in fanciful hypotheses about spirit, and life, and soul.

Should it be asked what is the cause of those processes of organization which produce the organism that produces life—the answer is natural, easy, and obvious. “It is,” say they, “a number of the particles of matter of certain kinds, in certain proportions, and in certain temperatures combining together by their chymical affinities.” Mighty clear certainly! After stating a few of the many wonderful combinations and changes effected by chymistry, they ask us to

ascend yet a little higher, and mark the *animalcula infusoria* that spring up in myriads in vegetable infusions—the *fasciola hepatica* growing in the livers of sheep—the various *vermes* in the intestines of man—the thousand species of *lice*, each peculiar in its own species of animal or plant—all without origins, without parents, without sexual intercourse. View these facts candidly, say they, and tell us to what you can ascribe living organized systems of matter, but to chymical processes.

“In what other light can we possibly view the sexual intercourse than merely as a circumstance which is often necessary to favour these processes at their commencement? Nay, in what other light can we possibly see even man himself than as a species of chymical compound, whose particles at the last hour of dissolution must again return each to the element from which it came; while the fabric they composed, like the flower of a season, or the insect of a day, after leaving perhaps another in its stead, shall, with all its instincts, appetites, and passions, and with all its reasoning and boasted powers, that were the result of its temporary organism, perish for ever?” P. 30.

That such were the commencement and such the termination of human existence, many may wish rather than believe—and a few may believe rather than wish; but those accustomed to reason and reflect, will not place implicit reliance on observations that are carelessly made, and assertions that are so confidently uttered. Even granting that there is nothing in the universe but matter, where are the *kinds* that organize animals and plants—where the *qualities* by which they organize particular structures? We can readily comprehend how the same materials, whether earth, wood, or stone, may be made to assume an infinity of forms; but the materials have nothing to do with the organization. It is at this day invariably acknowledged that every part of an animal or plant dug up from the bowels of the earth, must once have lived—and that some one of the vital phenomena must have preceded and even been necessary to its organization. It seems, therefore, to be the natural and the necessary conclusion, that so far is organism from being the *cause*, that it is rather the *effect* of vital phenomena; and hence it follows that the materials of food and drink, like the kinds of materials composing an automaton, may enter into myriads of structures, having no more concern in regulating their size, proportions, or forms, than the timbers have in devising the plan of a ship, into which they may enter—with all their chymical affinities it is true—but still merely as the materials, and not as the architects or contrivers.

In respect to the seeds of plants and eggs of animals, as they are evidently as much organized structures, and as much the effects of vital phenomena, as the plants and animals from whence they sprung, it is but a silly and puerile sophism to first represent them as extremely minute chymical particles, and then, taking advantage of their chymical affinities, say that they afterward produce animals and plants. The fact is, they are animals and plants themselves in their incipient state of existence—and this sophism, if closely examined, means no more than that plants and animals, however young and diminutive at their commencement, grow older by time, and larger by nutrition.

We must pass over the succeeding three or four sections on the "origin of things," as explained by Anaxagoras, Ocellus Lucanus, Democritus, and others, in order that we may come at once to the great arch-Atheist and Materialist of antiquity, LUCRETIUS, the expounder of the atomic doctrines of Epicurus. This poet embraces with enthusiasm the views, and opposes the enemies of Epicurus. He combats every objection with all the acumen of the logician, and the animation of the poet. He pours forth his whole genius and talents to illustrate, support, and recommend the favourite atoms of his favourite philosopher.

Yet with all the confidence which he has in these atoms, he never brings them to the test of observation or experiment. He never pretends that he has seen them, or indeed that they can be seen. He bestows on them many and various shapes—but never explains how their shapes co-operate to form an animal or plant—nor how, amidst all their various combinations, they never by chance light upon any thing in structure, materials, or external form, exactly resembling any work of art. He asserts that, even in his time, many animals were formed by showers and sunshine out of the mud.

"Multaque nunc etiam existunt animalia terris,
"Imbribus et calido solis concreta vapore."

Here the showers and sun must have been the father, and the earth the mother, of these new animals.* But how come these parents to bring forth young so unlike their kind?—why did they not bring forth young earths and suns? Instead of answering these questions, the poet is only busied in accounting why mother Earth was not so fruitful in his time as she had been formerly. And what were the reasons?—very clear and natural ones. "The times of child bearing,"

* ——— "E. terra quoniam sunt cuncta creata"

says he, "are always limited ; and being old and exhausted, these periods in mother Earth were approaching to a close."

"Sed, quia finem aliquam pariundi debet habere
"Destitit ; ut mulier, spatio defessa vetusto."—*Lib. v.*

Yet, to another question, how came the world so advanced in age, to be such a novice in the arts and sciences ? He replies, somewhat forgetful of his former statement, that, from the little progress which it had made in the way of invention or improvement, it must certainly have been of very *recent origin* at the time he wrote—in fact, only in the course of its education !

"Verum, ut opinor, habet novitatem summa recensque
"Natura mundi est ; neque pridem exordia cepit.
"Qua re etiam quædam nunc artes expoliuntur ;
"Nunc etiam augescunt." *Lib. v.*

It appears from Lucretius that Mother Earth was but a bungling artist herself at first, producing monsters of very singular appearances, incongruous forms, and with unnatural adhesions, &c. A superior authority therefore interposed, and took the management out of her hands. This Being, who belonged neither to atoms nor to elements, has been a very convenient substitute for a God, both in ancient and modern times. Her name is *NATURE*—a singular personage of the feminine gender, that is always generating, like Mother Earth, but is never seen generating after her kind. She is invested by our modern Atheists with extensive influence, incessant activity, and uncommon prudence, having obtained the direction of the atoms and elements in all their operations, seeing into futurity, preventing what she does not approve, creating and bringing to perfection all living things—and all this agreeable to *laws* imposed upon her by a higher power, which some call *Fate*, and others *Necessity*. In this part of the theory, Lucretius seems to have lost all confidence in the eternal rambling of his atoms. He thinks now that all must be regulated by diversities of *seeds* or *organic particles*, endowed each with a peculiar *secreta facultas* that makes them both living and organic. He deduces the soul also from a seed, and makes it display in its growth and evolution the species of seed from which it had sprung. Hence he concludes that it is from radical difference in the faculties of the soul, and not difference of organization in the body, that the lion is fierce, the fox crafty, and the stag timid.

As for the opinion that the soul or animating principle
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organized the body, Lucretius rejects it—*because* he cannot comprehend how it could be.

———At, qua possint, via nulla videtur :
Haud igitur faciunt animæ sibi corpore et artus.

Aware, however, that he might fairly be asked how his *semina* were originally organized, he is sadly perplexed, and merely informs us that “heat and air and the invisible power of the wind, being mixed with that *active principle* that distributes motion and sensation to them all, they together constitute but one nature.” As for the origin of the active principle, he confesses that it is utterly concealed in the innermost recesses of the body, whence it is latently diffused through every member, being the soul of the soul, the strength of the mind, and the energy of life—in short, that it reigns as a sovereign throughout the body, and is *without a name*.

“Sic tibi nominis hæc expers vis, facta minutis
“Corporibus latet.”

It is to this *nameless something* we owe the pulsations of the heart, the sensitive powers of the organs, the pleasure or pain felt in the nerves or bones.

Lucretius observed of old, (as the philosophers have observed in our own times,) that as the world had been long in a state of terror or dread of incorporeal beings, the principal object in writing was to rescue mankind from their vain apprehensions, by showing that all things are corporeal and composed of atoms—that those atoms will in time separate and be dispersed—and that even the soul shall cease to exist or feel. He seems anxious to inculcate the notion that the world has been arranged, and the organism of plants and animals constructed, without any view to their functions or uses, “and so men,” says he, “should avoid the error of supposing that the eyes were made to see, the feet to walk, &c.” No, says he, the organs existed *before* they were used—consequently they suggested the uses, and no uses could have been previously designed for the organs. He distinctly saw that a contrary opinion would lead to an idea that the works of nature, like the works of art, must be the effects of design and intelligence—an idea that would be utterly subversive of his atheistical hypothesis. The absurdity, however, of the doctrine that the organs suggested their own uses, is too obvious to require a word. The credulity, too, of this Arch-sceptic is only equalled by that of some of our modern Materialists. Thus he cannot believe in the immortality of the soul; but he believes in the existence of *simulacra*, thrown off from the surfaces of bodies, and con-

tinuing in separate states, constituting ghosts. Again, he strenuously endeavours to prove that, from their inconceivable minuteness, the first principles of things are *invisible*; yet he confidently ventures to determine their shapes, properties, magnitudes, &c. In a moment afterward, he is such a stickler for the evidence of the senses, that all are enthusiasts or dotards who trust to any thing else! "In this miserable shuffling," says Dr. Barclay, "he is often followed by the modern Materialists, who, without producing the evidence of sense for their own hypothesis, arrogantly demand such evidence for whatever hypothesis is opposed to theirs." We do not agree, however, with Dr. Barclay, in supposing that Lucretius, because he reposed no hopes on the promises of Religion, "could only view it through the medium of fear"—and that therefore "his whole reasoning is employed to remove its impressions." We believe that the great body of the Sceptics, both of ancient and modern times, had, and continue to have, neither hopes nor fears. Indeed, we do not see how a cultivated mind, that has no hope in the promises of revelation, can have any dread about futurity. They have a curse attending them, however, which is perhaps far worse than the occasional terrors of the religious enthusiasts. It is that melancholy, dreary, depressing prospect of *annihilation*, which intrudes itself constantly on their thoughts, damps every enjoyment of *this* life, and precludes, of course, all anticipation of another! There is not a Sceptic on this earth who does not envy the *terrors* of the most ignorant fanatic—*because* he well knows that with those terrors are mingled bright hopes and cheering illusions (if indeed illusions) of another world. These are excitements which can never thrill the cold heart of the Sceptic. His soul is like the stagnant lake—it is never agitated by

—— "That pleasing hope, that fond desire,
"That longing after immortality!"——

which prevents life from becoming insipid. He is, in fact, an object to be pitied, in more senses than one—to be pitied if he be in the *wrong*; on account of that futurity which he disbelieves—to be pitied if in the *right*; because, in this case, if in any, "ignorance is bliss," and it is manifestly "a folly to be wise."

We can form some excuse, however, for the apparently honest indignation which Lucretius expresses against the religion (superstition) and priests of his time, when we consider how much the people were immersed in ignorance, and the priesthood in knavery. We must also confess, with shame and sorrow, that religion, or rather superstition, has too

often, even up to the present moment, been perverted to the worst of purposes, by the designing, fanatic, ignorant, and tyrannical part of the world. The notions, as Dr. Barclay justly observes, of a Deity, of a watchful Providence, of a future state of rewards and punishments, may be, and have been, *perverted* to the worst of purposes. Instead of producing peace upon earth, they have too often been made the pretence for drawing the sword, for setting the son against the father, the daughter against her mother, and for making a man's household his foes.* But surely, as our author properly adds, the perversion or abuse of a principle can never, in the eye of genuine philosophy, be made an objection to the principle itself. The alternative which is here recommended, of disregarding all notions of religion, was observed by the greater part of the ancients to be attended with still worse consequences than any of the systems of Pagan theology. Epicurus and Lucretius themselves acknowledge that some notion of divine beings is quite irresistible, and that it will spring up in the human mind, as a thing indigenous, without the adventitious aid of education. "Intelligi necesse est, esse Deos, quoniam insitas eorum vel potius innatas cogitationes habemus."—*Cicero*. The attempt, therefore, to eradicate this notion from the human race is foolish, mischievous, and must, in the end, prove abortive.

We must pass over entirely the *second* chapter of our learned author's work on nature, the elements, forms and qualities, chance, fate, necessity, matter, &c. &c. and also a great portion of the third chapter, detailing the opinions of Paracelsus, Fray, Darwin, Leibnitz, Priestley, Haller, Buffon, Needham, Maupertuis, Robinet, Blumenbach, Gassendi, Cuvier, Lawrence, and Cabanis, respecting life and organization. We cannot afford space for the notice of more than a very few of these writers.

BLUMENBACH.—The idea of an eternal being, omnipotent, and omniscient, who watches over the affairs of men, continues their existence beyond the grave, and renders them accountable for their actions in this world, is not equally cherished by all. It is, however, a very general idea, and seems so instinctively implanted in our nature, that no devices have hitherto completely eradicated it from the minds of men—perhaps even of the most sceptical. That there is some invisible agent who superintends the universe all are willing to allow—but all are not willing to attribute to this agent in-

* Matthew, Chap. x. 34.

telligence and moral attributes—or that he will make them responsible for their motives and actions. They are therefore inclined to fancy other agents more suitable to their ideas, or perhaps to their wishes, such as Nature, Fate, Chance, Necessity, or certain invisible energies or powers diffused throughout space, which operate methodically, yet without intelligence or moral attributes—and, if not *material*, are traceable to no other cause that either is or ought to be named. It is to one of these abstract powers that Blumenbach has ascribed the organization of animals, bestowing upon this child of his fancy some peculiarities which he thinks ought to recommend it by their novelty. This power he denominates *nisus formativus*, which presents little novelty to those who have heard of the *vis formatrix* or *nisus* of Kempt, or *formative propensity* of Darwin. The new information conveyed in this hypothesis of Blumenbach amounts to no more than this truism, that—a *plant or animal is formed by the power that formed it* ! It is, in fact, recurring to the old and obsolete mode of explaining phenomena, by which creation was ascribed solely to a *vis creatrix*—generation to a *vis generatrix*—concoction to a *vis concoctrix*, &c. What does Mr. Hunter explain by his stimulus of death—stimulus of necessity—stimulus of cessation ? &c. His most enthusiastic admirers can hardly pretend to understand him.

But Blumenbach pretends to have ascertained the laws by which his formative *nisus* operates. What are these laws ? The jet of them is—that young animals grow faster than old ones—that the processes of organization are more rapid in the class of mammalia than in oviparous animals—and that in both classes there are certain organs, for instance, the brain, which are generally found to be more regularly organized than others. In his own language the first law is that—“the activity of the *nisus* is in an inverse ratio to the age of the organized body”—the second that—“the formative *nisus* is much more active in the embryos of mammalia than in those of oviparous animals”—the third that—“in the formation of some particular parts of an organized body, the formative *nisus* is much more regular in its process than in that of others.

There is this apparent novelty, however, in Blumenbach—his attempt to consider a power as distinct from the agent in which it resides, or from which it proceeds—of giving a name to this power, and yet refusing a name to the agent which exercises it. Thus, he gives us to understand that this *nisus* is a power deriving its origin from some occult quality ; and that this *quality*, though totally *unknown*, has, nevertheless, been found to be a quality of *matter*. If we ask, of what

matter is it a quality? Blumenbach admits that it is not a quality of matter in general—that it is confined to organized bodies—and to be found in those bodies *only*, when in that state which is termed *living*—that it seems to depend on the powers of *life*—that it is a quality of *living* bodies, but as distinct from the other qualities of living bodies, (sensibility, irritability, contractility,) as from the common properties of dead matter! After this circle of contradictory and unmeaning reasoning, we may take leave of Blumenbach. If he had simply and candidly confessed that he knew nothing at all about the matter, he and many other philosophers would have shown their wisdom in exposing their ignorance!

CUVIER, rejecting the hypothesis of pre-existing germs, indestructible monads, organic particles, and semina rerum, ascribes the organization of plants and animals, sometimes, to what he terms a *vital force*; sometimes, a *vital impulse*—sometimes, to a *species of motion*—and, sometimes, to *life itself*. To a person not blinded by some hypothesis, some distinction between force, impulse, life, and motion, would certainly have occurred. To him, however, it has not occurred. With respect to *life*, he thinks not of deciding whether it be the cause or the effect of motion—he imagines it to be sometimes the one, and sometimes the other. And yet, as Dr. Barclay shrewdly observes, Cuvier must have seen varieties of motion which never produced any thing like life, while, on the contrary, he never could have observed, and fully ascertained the presence of life in any one body, in which that life did not exhibit some phenomena of motion proceeding from itself, and originating in itself, independently of any thing like external impulse. In short, Cuvier's explanation of life and organization is, as Dr. Barclay remarks, “nothing but a heap of words; or, to borrow a term from the language in which it is written—mere *verbiage*.” After this gentleman's assertion that the laws which regulate living bodies are not only different from those which regulate mere matter, but act in a manner *entirely contrary* to those laws, we could hardly fail to be surprised at his singular warning, *not to consider those two kinds of laws, though entirely contrary the one to the other, as being absolutely of a different order!* The truth is, Cuvier, like those physiologists who would have the stomach to be any thing but a stomach, is strangely bewildered amidst the confusion of his ideas in labouring to prove that the cause of life may sooner be any thing than what men in general feel and suppose it to be. At one time he says that be life what it will, it cannot be what the vulgar suppose it, a particular principle (*principe particulier*.) In another place he acknowledges that life can proceed only

from life. (*La vie ne naît que de la vie.*)—Then again he considers it an integral principle, (*un principe interieur d'entretien et de reparation;*) and last of all, says (what Mr. Lawrence has since repeated verbatim) that life consists in the sum total of the functions. "*Il consiste dans l'ensemble des fonctions qui servent à nourrir le corps, c'est à dire la digestion, l'absorption, la circulation, &c.*" Thus he makes life a cause which owes its existence to its own operations, and consequently a cause which, had it not operated to produce itself, had never operated nor existed at all! Such are the brilliant conceptions and lucid explanations of our modern materialists!

"In concluding these remarks," says Dr. B. "on Cuvier's ideas of the nature of life and organization, it may well be said, that, were any person capable of supporting, with any tolerable degree of success, the doctrines of materialism, it would certainly be Cuvier. He is a naturalist, a chymist, mineralogist, a most distinguished and illustrious anatomist, and has probably examined a greater number of organized bodies than any other individual in Europe. His industry, at the same time, his learning, his eloquence, and his various talents, are of the first order, except his logical acumen, which seems to have been either originally defective, or to have been afterward miserably blunted by his hypothesis. It is truly pitiful to think of a man with so many endowments, natural and acquired, driven as if blindfold by the fashion of the times, a contemptible vanity, or some wretched inclination, endeavouring to support with all his energy the extravagant idea that the phenomena of design and intelligence displayed in the form and structure of his species, might have been the effects of some antique force, impulse or motion, or of some group of functions, as digestion, circulation, respiration, transpiration, and excretion, which have accidentally happened to meet without any assignable cause to bring them together, to hold them together, or to direct them." 330.

LAWRENCE.—In our notice of this section we shall suspend all sentiments of our own, and adduce nothing but what is found, both in letter and spirit, in the work before us. We shall not even use our own language upon this occasion, but adhere most strictly to the very words and expressions of Dr. Barclay. Mr. Lawrence, whom we esteem, and Dr. Barclay, whom we respect, shall have no cause to say that we have aught extenuated, or "set down aught in malice," on the present occasion.

"Mr. Lawrence," says Dr. B. "a skilful surgeon, a learned physiologist, and a distinguished anatomist, in treating of life and organization, has seldom ventured beyond the steps in which Bichat, Blumenbach, and Cuvier have trodden." Like them he appears hostile to the idea of a vital principle—

resolves to confine his observations to vital properties—and feels no wish to draw aside the veil from Nature, and penetrate first causes. He disapproves highly of those physiologists who “suppose the structure of the body to contain an invisible matter or principle by which it is put in motion”—such as the *impetum faciens* of Hippocrates, the *archeus* of Van Helmont, and the *vital principle* of moderns. “Most of these terms, Mr. Lawrence observes, have long lain in cold obstruction among the rubbish of past ages; and the modern ones are hastening after their predecessors to the vault of all the capulets.”

“By this language, his determined hostility to the vital principle is sufficiently evinced. In writing the last words, he seems to have actually embodied it in his fancy, to have thought of its life, its death, and of its grave, though not, we should hope, of the dark night, of the poison, and the dagger, that are said to have been present at the melancholy scene which once took place in the vault of all the Capulets.* In speaking of this principle, when his mind appears in a calmer mood, he says, ‘It is compared to magnetism, to electricity, and to galvanism; or it is roundly stated to be oxygen. ’Tis like a camel, or like a whale, or like what you please.’† As in every shape, however, it appears to annoy him, it is no wonder, that, like Lucretius, when in horror at religion, he should feel an inclination to trample it under foot, and that to prevent his imagination in future from being haunted by so troublesome a spectre, he should labour to prove that it did not exist. In proceeding to his proofs, he says, ‘We do not profess to explain *how* the living forces in one case, or attraction in the other, exert their agency.’‡ This is said in imitation of Blumenbach, and, he fondly fancies, in imitation of Newton also, who, in showing that the motions of the heavenly bodies follow the same law as the descent of a heavy substance to the earth does, contented himself with explaining the fact.§ Taking these two authorities for his example, he proposes to trace the phenomena of life and organization no farther than to certain laws, powers, properties, forces, and impulses, which in imitation of his principal guide Cuvier, he chooses to call vital. ‘Foiled (he says) in our attempts to ascend to the origin of organized beings, we seek to inform ourselves concerning the real nature of the powers which animate them, by examining their composition, by investigating their texture, and the union of their elements. In them only can the vital impulse have its source and foundation.’||

* See Shakespeare's *Romeo and Juliet*, Act V. Scene iii.

† P. 169.

‡ P. 165

§ ‘In showing that the motions of the heavenly bodies follow the same law as the descent of a heavy substance to the earth does, Newton explained the fact.’ P. 167.

|| Ibid. p. 142.”

Had he added, like Cuvier, from whom this passage is literally translated,* though without any reference, that the texture and union in some measure owe their existence and continuance to the vital forces, or the vital impulse, he might then have inferred, that as they were mutually the source and foundation of one another, there could be no rational motive for tracing them to the origin of organized beings. But Cuvier thinking that also necessary, so does Mr. Lawrence, who, modestly declining either to think or to speak for himself upon the occasion, has no alternative but to follow and obey; and therefore, though his language may appear to proceed directly from himself, it is no more than a literal translation of that passage in which Cuvier† talks of the vital germ containing all the vital phenomena to be afterward developed; of life proceeding only from life, and where he informs us that the vital impulse said to have its source and foundation in the texture, as the texture had its source and foundation in the impulse, so this impulse is also to be considered as having at times a different origin, and to be an impulse not originating in the texture, but an impulse transmitted from the first parents of every species in an uninterrupted succession. On this new hypothesis, bodies are said to grow on bodies similar to themselves, from which they do not separate until they are sufficiently developed to act by their own powers, when, according to Mr. Lawrence, ‘they grow by an internal power, and finally perish by that internal principle, or by the effect of life itself, exhibiting in their natural destruction or death, a phenomenon as constant as that of their first production.’‡

“This admission of an internal principle must strike the reader as somewhat remarkable, when that admission is by Mr. Lawrence, who scruples not to ridicule all those physiologists who suppose that any animal structure contains within itself an internal principle that puts it in motion.” 336.

“* See the original, p. 329 of this Inquiry.”

“† See Cuvier, vol. i. p. 6 and 7, and Mr. Lawrence's Lectures, p. 140, 141, and 142. See also Mr. Lawrence's advertisement, where the want of time, and a desire to print his Lectures as they were, are made the apology for omitting references.”

“‡ P. 147. See also p. 145, 146.”

“The idea that death is one of the necessary consequences of life, is, without acknowledgment, also borrowed from Cuvier. Upon the supposition that life is motion, Cuvier infers that it must cease like every other motion which is not in vacuo; “Il paroît même que la vie s'arrête par des causes semblables à celles qui interrompent tous les autres mouvemens connus, et que le durcissement des fibres et l'obstruction des vaisseaux rendroient la mort une suite nécessaire de la vie, comme le repos est celle de tout mouvement qui ne se fait pas dans le vide, quand même l'instant n'en seroit pas prévenu par une multitude de causes étrangères au corps vivant.”—Vol. i. p. 6.

“The opposite opinion that life is one of the consequences of death, has
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What then, Dr. Barclay asks, is the meaning which Mr. Lawrence attaches to *his* internal principle? He has told us, on the authority of Cuvier, that the vital impulse has its source in the texture and union of the elements which compose the structure—that life proceeds *only* from life—and that both life and vital impulse have been transmitted from our first parents by an uninterrupted succession. On the same authority, he has also told us that death is the necessary consequence of life itself—and lastly, brings forward Cuvier to tell us that “the idea of life is one of those general and obscure notions produced in us by observing a certain series of phenomena possessing mutual relations, and succeeding each other in a certain order :—that the vulgar, regarding these phenomena as the sign of a particular principle, have given to that principle a name, though in fact that name can only indicate the assemblage of the phenomena which occasioned its formation.” “As to the question what assembled the phenomena?—Mr. Lawrence, before he presumes to reply, has to consult Cuvier, who is unable, however, to solve the difficulty.” He only knows that they are assembled, and that they are held together by a link; but he knows as little of the link as of the cause of their assemblage. You may call this cause what you please, with this proviso, that you do not look on it with the vulgar, as a particular or vital principle—though both Cuvier and Lawrence have, oftener than once, in speaking of the cause of vital phenomena, used language that leads irresistibly to the vulgar idea of a separate principle contained within the structure, and putting it in motion. If the assemblage of vital phenomena, as digestion, circulation, nutrition, &c. forms this principle, as Cuvier states, how come these phenomena to be called *vital*?

“He seems not to reflect, any more than Cuvier, that the epithet *vital* in these cases can only imply, that they are the forces, properties, or powers, of a living being; and that therefore, in annexing the idea of vitality either to a force, a property, or a power, we must first, though absurdly, suppose it personified, and then view it either as a distinct body or spirit. Of this absurdity, Mr. Lawrence himself, on certain occasions, seems to be aware; and on these occasions ascribes his living powers and his living properties to living bodies. So far, certainly, he is quite intelligible; but this question follows, How does it happen that his living bodies come to be

obtained the preference with Buffon and Needham, whom we have seen maintaining with the ancients, that the corruption of one body is the generation of another. *Corruptio unius generatio alterius.*”

formed by their own properties? Here he has no answer to give: *he even acknowledges, that he has no hesitation in affirming that no connexion has been established in any one case between the organic texture and its vital power; a most singular confession, at least from him.* But this leads to another question: If no connexion has been established, how comes he to employ the expression organic texture and *its* vital power? Had he not as good reason for saying the vital power and *its* organic texture? This last expression might however seem to imply that the vital power was the cause of the texture; a supposition which is admitted only when he is accounting for the origin of the texture. In general we are given to understand that the functions are the offspring of the structure, or that the life is the result of the organization; and that the two are consequently connected as cause and effect, between which, it would seem, his experience does not warrant any idea of necessary connexion." 340.

We do not deem it necessary to follow our author any farther in his criticisms on Mr. Lawrence's observations on organization, cause or effect, or the mode of cultivating physiological science. Our readers have now pretty well seen that this section has not brought us *much* nearer to a knowledge of life than any of the preceding sections. We are, in fact, just where we started—unless it be that the farther we go in the inquiry, the darker is our path, and the more we become convinced of our utter ignorance!

Dr. Barclay concludes his critique on Mr. Lawrence with a lamentation and a eulogy conjoined.

"Had Mr. Lawrence only caught a portion of his (Mr. Hunter's) spirit, or a portion of the spirit of Harvey or Haller, and, in prosecuting physiology, dared to think for himself, regardless of Cuvier's or any other's creed; there are few, perhaps, and there have been few, whose ardour, industry, abilities, learning, and opportunities, would have entitled them to entertain such rational hopes of similar success." 348.

CABANIS.—This gentleman, who has written a large work on the relations between the moral and physical part of man's nature, has taken great pains to prove that the moral part has its origin in the physical—that all our ideas may be traced to sensation or to sensibility—and that these last can be traced no farther than organic structure and its functions. According to Cabanis, it was Democritus who first dared to conceive a system of the world founded on the properties of matter and the laws of motion. He represents this ancient Materialist as being found by Hippocrates very busy in dissecting the brains of animals, in order to unveil the mysteries of physical sensibility, and to discover the organs and causes which produce thought.

"Hippocrate, appelé par les Abderitains, pour guerir Democrite de sa prétendue folie, le trouva disséquant *des cerveaux d'animaux*, dans lesquels il s'efforçoit de démêler les mystères de la sensibilité physique, et de reconnoître les organes et les causes qui produisent la pensée."

On turning, however, to the letter of Hippocrates to his friend Damagetus, we find that Cabanis has, with the greatest effrontery, *falsified the text*. In the letter there is no allusion whatever to this unveiling of mysteries in the search after the organs of thought. Democritus, poor man, was merely dissecting animals for the purpose of finding out the nature and seat of *bile*, which he conceived to be the cause of madness! "Nam animalia hæc, quæ vides, inquit, hujus-gratia reseco, *non quod odio habeam opera Dei, sed bilis*, naturam ac sedem quærens. Nosti enim quod hæc furoris hominum causa est, ubi nimium redundarit."* This is a pretty specimen of Cabanis's fidelity! We shall, however, exhibit another. According to this gentleman, it was Locke who first gave development to this idea of Democritus, by establishing on clear and direct proofs, *that all our ideas are derived from the senses!* Now let us see what Locke says on this point. That philosopher, it is true, asserts that all our ideas are derived *either* from sensation or *reflection*; but sensation and reflection, in his language, are words of different import—denoting distinct sources of ideas.

"Our senses," he observes, "conversant about particular sensible objects, do convey into the mind several distinct *perceptions* of things, according to those various ways, wherein those objects do affect them: and thus we come by those ideas we have of *yellow, white, heat, cold, soft, hard, bitter, sweet*, and all those which we call sensible qualities; which, when I say the senses convey into the mind, I mean, they from external objects convey into the mind what produces there those *perceptions*. This great source of most of the *ideas* we have depending wholly upon our senses, and derived by them to the understanding, I call Sensation.

"The other fountain, from which experience furnisheth the understanding with *ideas* is the *perception of the operations of our own minds* within us, as it is employed about the *ideas* it has got; which operations, when the soul comes to reflect on, and consider, do furnish the understanding with another set of *ideas* which could not be had from things without; and such are *perception, thinking, doubting, believing, reasoning, knowing, willing*, and all the different actings of our own minds, which we, being conscious of, and observing in ourselves, do from these receive into our understandings as distinct *ideas*, as we do from bodies affecting our senses. This

source of ideas, every man has wholly in himself: and though it be not sense, as having nothing to do with external objects, yet it is very like it, and might, properly enough, be called internal sense. *But, as I call the other Sensation, so I call this Reflection; the ideas it affords being such only as the mind gets by reflecting on its own operations within itself.*"* 358.

With what confidence, Dr. B. asks, are we to rely either on the accuracy or veracity of Cabanis, who thus imputes opinions to Locke which he never held, "and who, falsifying the letter of Hippocrates to Damagetus, imputes to Democritus a course of studies of which that philosopher seems never to have dreamed." In short, had Cabanis comprehended the meaning of Locke, and possessed the candour to represent him fairly and honestly, he would rather have said that Locke was the first, or among the first, who fully exposed the falsehood of that old scholastic maxim—"Nihil est in intellectu quod non fuit prius in sensu."

Cabanis having made some use of *physiognomy*, in his hypothesis, Dr. Barclay takes occasion, in this place, to offer some keen, but not ill-natured, strictures on it, as well as phrenology or craniology. In respect to the first, or physiognomy, Dr. B. justly observes that the superstitious credulity of mankind is always ready to welcome and embrace such a science, (if it deserve that name,) not only in opposition to reason, but in opposition to the numerous facts which belie its predictions. Our author means not to deny indeed that there are many external appearances in the form, proportions, and attitudes of the body, by which we are led, partly by instinct, and partly by previous associations founded on experience, at once to form some idea of the health, temper and dispositions of the individual. But he properly objects to the pretension of forming any correct idea of a man's private or peculiar character from these alone, without knowing something of his actions, previous education, opinions, and prejudices, or of those arts which he may have acquired in counterfeiting various outward expressions that bespeak neither the feelings of his heart, nor the thoughts of his head. In short, the absurd attempt to judge of the whole of a man's character by merely examining a part of his body, his hands, or his head, has been so invariably the practice of physiognomists, that physiognomy now denotes little more than a species of fortune-telling.

Cabanis alludes to the old opinions respecting the four humours, to show that the ancients (as well as the inoderns) had frequently observed how much the nature of the several

* *Essay on Understanding*, Vol. I. p. 68. Lond. 1784. 2 vols. 8vo.

passions, affections, and thoughts was dependent on the state of the body. Now there can be no rational objection to this general conclusion, that the body modifies the vital phenomena. It is only when Cabanis presumes to assert that the body not only modifies, but is really the sole *cause* of these phenomena, that we should be disposed with, Dr. B. to enter our dissent, and to deny that such a conclusion is warranted by his premisses, or by any observations which he has made. We shall make no apology for here inserting a rather long extract from Dr. Barclay, since we conceive that it exhibits enlightened views, and at least rational conjectures.

“ Suppose that, agreeably to a hypothesis not only of Robinet, but of other philosophers, there are two worlds, a visible and an invisible, and that there are many species of beings belonging to the latter, which, endowed with the power of organizing matter: form to themselves specific structures adapted to their several capacities and energies; would it not follow, on this supposition, that these beings, in constructing their systems of material organs, or in employing these organs afterward, would at least be regulated by some laws peculiarly their own, and exhibit phenomena, through the medium of such organs, which could not with any propriety be ascribed to any of the substances composing the material or visible world? Considering, besides, that those systems of material organs would still be subjected to the general laws of the visible world, would there not necessarily be a reaction between those systems and the invisible beings within them? and until the relation between them should be dissolved, would not the systems continue subjected to two distinct species of laws at the same time; one species peculiar to the invisible beings acting from within; and another species peculiar to the visible or material world acting from without? Now, that there is some invisible agent in every living organized system, seems to be an inference to which we are led almost irresistibly. When we see an animal starting from its sleep, contrary to the known laws of gravitation, without an external or elastic impulse, without the appearance of electricity, galvanism, magnetism, or chymical attraction: when we see it afterward moving its limbs in various directions, with different degrees of force and velocity, sometimes suspending and sometimes renewing the same motions, at the sound of a word or the sight of a shadow, can we refrain a moment from thinking that the cause of these phenomena is internal, that it is something different from the body, and that the several bodily organs are nothing more than the mere instruments which it employs in its operations? not instruments indeed that can be manufactured, purchased, or exchanged, or that can at pleasure be varied in form, position, number, proportion, or magnitude; not instruments whose motions are dependent upon an external impulse, on gravity, elasticity, magnetism, galvanism, on electricity or chymical attraction;

but instruments of a peculiar nature, instruments that grow, that are moved by the will, and which can be regulated and kept in repair by no agent but the one for which they were primarily destined; instruments so closely related to that agent, that they cannot be injured, handled, or breathed upon, approached by cold, by wind, or by rain, without exciting in it certain sensations of pleasure or of pain; sensations which, if either unusual or excessive, are generally accompanied with joy or grief, hopes or alarms: instruments, in short, that exert so constant and powerful a reaction on the agent that employs them, that they modify almost every phenomenon which it exhibits, and to such an extent that no person can confidently say what would be the effect of its energies if deprived of instruments; or what would be the effect of its energies if furnished with instruments of a different species, or if furnished with instruments of different materials, less dependent on external circumstances, and less subjected to the laws of gross and inert matter. That logician therefore, that moralist, that divine, or that metaphysician, who overlooks the reaction of the organs, and proceeds to treat of the animating principle, as a thing unbodied, or at least not encumbered with material organs, is guilty of as unwarrantable an assumption, as that anatomist, surgeon or physician, who, considering only the reaction of the organs, most illogically concludes that they not only modify the energies of the animating principle, but are even the causes of its existence." 372.

Dr. Barclay observes that the voluntary organs are not restricted to any specific modes of operation—the human hand is not limited to acts of beneficence or cruelty. It is equally subservient to all instincts, appetites, and passions. An organ thus employed in such a variety of different offices, and executing each with promptness and precision, might lead the unwary to suppose it composed of a great variety of subordinate organs, corresponding with its different duties. Such conclusion would not follow, however, in reasoning analogically from the works of *Nature*; for although the hand is constructed of many dissimilar parts, it is *not* on the principles of a timepiece, whereof each index requires a distinct apparatus. In the human hand all the parts are observed to combine in each operation—and the varieties of these operations are not so much owing to the number of parts, as to the varieties of their combinations—these last being almost incalculable.

"Taking the hand then as a specimen of the works of nature and of animal structure, and thence reasoning on the principles of analogy, with respect to the brain, ought we not to infer, that all the parts of which it is composed may also combine in a similar manner, and be concerned in every phenomenon which has been ascribed to it?" 374.

The phrenologist, it is true, cannot consistently draw this

conclusion, imagining, as he does, that each specific phenomenon, or series of phenomena, is the effect of a specific faculty, and that each faculty has a specific system of organs by which it perceives, conceives, imagines, and remembers, in a manner peculiar to itself.*

If the metaphysicians, as Dr. Barclay wisely remarks, have long been censurable for personifying, as it were, what they call powers and faculties, and viewing them as connected loosely, like a bunch of keys hung upon a ring, or engrafted branches deriving their nourishment from the same stock, the phrenologists seem inclined to push this hypothesis still farther, not only increasing the number of faculties but the number of organs. Besides the organs of sense long known to anatomists, they have found or fancied no fewer than thirty-three species of organs or systems in the human brain—and these all in pairs: a pair for each species of propensity, a pair for each species of sentiment, a pair for each species of knowledge, and a pair for each species of reflection. If you ask for ocular demonstration, you are told these organs are indicated by thirty-three modifications observed in the form of the skull, occasioned, of course, by a corresponding number of modifications in the brain. Yet on opening the skull, and examining the surface of the brain, where these organs are said to be situated, it requires no small share of creative fancy to see any thing more than a number of almost similar convolutions, *all* composed of cineritious and medullary substance nearly in the same proportions, and *all* exhibiting as little difference in their form and structure as the convolutions of the intestines—"nay, all, when unfolded, according to Spurzheim, in cases of *hydrocephalus internus*, presenting but one uniform web of cineritious and medullary matter." No phrenologist has ever yet attempted to draw the line of demarcation between these organs; but supposing they were divided, and presented promiscuously and detached, to a craniologist, would he venture to distinguish merely by their form and structure, an organ of propensity from an organ of sentiment—an organ

"* 'The faculty of tune, for example, perceives, conceives, imagines, and remembers, melody alone; the faculty of causality, perceives, conceives, imagines, and remembers, ideas of necessary consequence and nothing else. One faculty, like one branch, comes to maturity sooner than another; one may be strong, and another weak, in the same or in different individuals; one may decay or become diseased, and the others remain vigorous; and all this in consequence of each faculty having a distinct and specific organ.'—*Illustrations of Phrenology*, p. 51.

of sentiment from an organ of knowledge—or an organ of knowledge from an organ of reflection? He would be a hardy craniologist if he did! But although it is so difficult to recognise these organs when the skull is removed, yet it appears that they are so very prone to affect conspicuous situations, and obtrude themselves on the notice of the senses, that there is not any visible part on the crown of the head, on the frontal bone, on the occiput or temples, where, according to the craniologist, they do not exhibit, even through the hardest and the thickest skulls, undeniable proofs of their actual presence. Dr. Barclay shrewdly and somewhat jocosely asks, “is it then, in order to be always within the sphere of physiognomic and phrenological investigation, that they equally avoid the central parts of the cerebral substance?” We fully agree with our judicious author in the following passage;—

“To the observations made by phrenologists on the forms of the head, as indicative of these several powers and capacities of the animating principle, if made with sufficient caution and accuracy, and if the relations which they wish to demonstrate can be fairly established upon the broad principles of induction, there can be no rational objection. Their supposed organs rest upon a quite different foundation: not being demonstrable in form or in structure, they must ever remain the mere offspring of a hypothesis; and of a hypothesis that may be disproved by what is termed a *reductio ad absurdum*.” 379.

Dr. Barclay pays a just compliment to the learning, candour, and liberal sentiments of Dr. Spurzheim, Sir George Mackenzie, and Mr. Coombe, with whom he is personally acquainted, and who, he feels conscious, will not be offended at these remarks.

“Although,” says Dr. Barclay, “I think that in many instances their premisses are far from supporting their conclusions, and that the latter too frequently rest on the former, like a pyramid on its apex; or a broad superstructure upon a narrow and tottering basis; yet to their writings I acknowledge myself to be much indebted for several new and important views which they have suggested, and therefore will never subscribe to the sarcasm, that what is true in their doctrines is not new, and that what is new in them is not true. Though evidently inclined to favour physiognomy, yet they seldom fail to caution their readers against its extravagancies: a warning, I suppose, which they have found to be highly requisite: but although, like physiognomists, they be apt to ascribe more influence to the organs than is strictly warrantable, in many cases imagining them to command where they only obey, they never once question the existence of an internal animating principle, nor, like Cabanis, endeavour to maintain that whatever is moral and intellectual in man is merely the consequence of organic structure.” 381.

Dr. Barclay's short section on the share which *chymical affinities* have in the organization of animals, need not occupy any space here. No man of common sense, or common observation can, for a moment, confound together vital and chymical phenomena. It is sufficient to say that Chaptal and Thomson deny the connexion, affinity, or identity.

This brings us to the third and last chapter of the work, exhibiting a sketch of the opinions of some eminent characters, ancient and modern, who have supposed a living internal principle distinct from the body, and likewise the cause of its organization. The writers noticed on this side of the question are, Aristotle, Harvey, Willis, Hunter, Abernethy, Deleuze, Grew. Over these we must make rapid strides, as our limits are drawing towards a close.

ARISTOTLE. This powerful genius, after enumerating the various opinions entertained by others concerning the soul, gives us his own opinion. He pronounces it to be a substance belonging to the order of real entities—the first *entelecheia*, or primary principle of action in a natural organized body, susceptible of life, totally different from that which is known to move an automaton or artificial organized body. He then goes on to explain this definition more clearly. Thus, in considering what holds the fabric of the universe together, and forms out of the discordant elements a harmonious whole, he infers, from analogy, that it must be something similar in kind, to that which holds together an organized body—namely, a principle of life; and that this principle, from the appearance of order and design displayed in the universe, must also have intelligence, and have existed before the elements or matter. This supreme animating principle, which he denominates *Theos*, or God, is invisible to mortal eyes, and can only be known through his works—who is not incorporated with any of the elements, but who resides apart and alone, extending his influence to all things on earth and elsewhere.

“ Besides this supreme animating principle, the author and preserver of all, there are many others, according to Aristotle, of an inferior and subordinate nature, which, by delegated powers, organize the bodies of animals and plants, so that all organized bodies whatever are to be considered as constructed by, and constructed for their animating principles; which, like the great animating principle, from being invisible to mortal eyes, indicate their existence, their energies, and their species, only through the medium of the structures which they form. Now, of these structures they are not only the efficient causes, but, in his opinion, the formal and the final; the causes of their motions, growth, and nutrition; the causes which give them a character and form; the causes on whose ac-

count they exist; and even the causes of their being afterward liable to corruption, as nothing is corrupted but what has been nourished, and has some time or other partaken of life." 432.

It is not a little singular that Aristotle, after admitting and endeavouring to prove, that every soul organizes the body, and constructs for itself peculiar organs suited to its faculties, should yet be inclined to believe, that souls are indebted for their existence to the bodies which they have formed, and must consequently perish with them. This opinion is still more singular, when we find him maintaining that the soul is not affected by age—that the dimness of sight, and the effects of sickness and ebriety, are not the consequences of any change in the state of the faculties, but only of a change in the state of the organs—in short, that where the intellectual and contemplative faculties seem to be impaired, we are only to infer that some organ of the body is diseased, the faculties themselves being still entire, from their participation in the nature of the Deity. He thinks, however, that the *Nous*, or intellective and contemplative faculties are separable from the other faculties and from the body, and, in conjunction, are capable of maintaining an independent existence.

HARVEY. After an active life spent in study, observation, and experiments, Harvey came to the same conclusion with Aristotle, that all animals and plants owe their form, structure, growth, and power of resisting putrefaction, to an animating principle which exists and operates before any organ of the structure can be formed. As the plan on which this principle appears to act unconsciously, implies much power, intelligence, and foresight, Harvey ascribes it exclusively to him who formed the universe itself, and who appears to be every where present as the superintendent and director. But Harvey, like Aristotle, is not free from inconsistencies. Warped by his favourite hypothesis respecting the blood, he imagined that this fluid is formed and moved before any vessel or any organ of motion exists—that in it, and from it, not only do motion and pulsation originate, but animal temperature, the vital spirit, and even the principle of life itself—that it is the first thing that lives, and the last that dies. With all the inconsistency of the philosopher, he asserts that the blood appears to differ in nothing from the *anima*, and that what he had already conceived to be a principle distinct from the blood, appears now to be no more than an act of that fluid! To support this fanciful hypothesis, he appeals to the sacred writings, where the blood is symbolically denominated the life of the flesh. With equal propriety might he have appealed to the figurative language of Virgil, where

a purple life and a purple death are synonymous expressions. "Purpuream vomit ille animam."

We shall pass over the lucubrations of Willis, "who indiscriminately rests his opinions on hypotheses and facts," in the most cursory manner; since, we fear, we have already made considerable demands on the patience of our readers. He believes, with Aristotle, that each individual animating principle organizes the body in which it resides, and always constructs it to suit the specific and peculiar faculties with which it is endowed, and which it is afterward to exercise. He agrees, also, with Harvey, in supposing that this principle resides in the blood or circulating fluids, denominating it the corporeal soul, and describing it as of an igneous nature, and formed of such particles as the body itself, but of a subtle and refined kind.

HUNTER. The mind of this gentleman was not stored with much of the riches of literature. Most of his opinions, though thought by himself, and perhaps his friends, as original, are neither new nor uncommon. Thus, having inferred from experiment, not only that a prolific egg has the power of preservation, or a principle of life, but, that organization and life do not depend, in the least, on each other—that organization may arise out of living parts and produce action, but that life never can arise out of, or depend on organization, he seems anxious to secure to himself the honour of these discoveries, though Harvey performed the same experiments a hundred years before, and drew all his conclusions, excepting that one, in which organization and life are made not to depend in the least on each other—a conclusion which, unfortunately, is contradicted rather than warranted, by the premisses on which it is made to rest. He appears, also, to have laboured under the singular delusion, that he himself was the first person who had ever dreamed of the vitality of the blood; and yet, the observations and experiments which he made with that view, are neither so numerous nor so forcibly stated, as those which had previously been made by Harvey. After all, he seems never to have entirely divested his mind of the idea of a living power in the solids. What he chiefly contends for is, that there is a principle of life in the blood as well as in the solids—a principle which he calls the *materia vitæ*, and which, principally, he says, composes the brain. On this hypothesis, the brain is the *materia vitæ coacervata*, the nerves chordæ internunciaræ, and the like matter diffused through the blood and body in general, the *materia vitæ diffusa*. But he abides not long by this opinion; for he soon afterward thinks, that this cerebral matter is not so essential to life as the blood—that life commences even in the chyle—

while these fluids, on another new hypothesis, are supposed to acquire their activity in the lungs! It is not surprising that, from such a chaos of inconsistent and contradictory ideas, he was unable to draw any rational conclusion. In searching for the principle of life, on the supposition that it was the property of something visible, he has, fruitlessly enough, looked for it in the blood, the chyle, the brain, the lungs, and other parts of the body—but not finding it in any of them exclusively, he then concluded, that it must be a consequence of the union of the whole, and depend upon organization—the precise conclusion which has still more recently been brought up again by Mr. Lawrence and others. But, to this conclusion, Mr. Hunter could not long adhere, after observing, that the composition of matter does not give life, and that a dead body may have all the composition it ever had. Last of all, he draws the true, or at least the candid conclusion—that *he knows nothing at all about the matter.**

MR. ABERNETHY. We have always looked upon the theory of this gentleman as not a less decided doctrine of materialism than that of Mr. Lawrence; and, to us it appears perfectly evident, that had Mr. Lawrence delivered his opinions without dogmatism, without irony, and without sneers at religion,—had he delivered them as philosophical conjectures, (and he ought to have known that they were but conjectures a hundred times conjectured,) they would never have involved him in the sea of troubles which now surround him. It is, we repeat it, the *manner* and not the *matter*, which is more objectionable in Mr. Lawrence's than in Mr. Abernethy's writings.

Mr. A. has adopted *that* opinion of Mr. Hunter, which makes the principle of life independent of organization—a something *superadded* to the organized structure. "In defending this opinion, however, he supports it with much modesty and candour, and nowhere attempts to enforce it by sophisms or dogmatical assertions."† We are now to inquire on what evidence is founded the supposition, that life is *superadded* to organized structure.

"If the organized structures of the first parents of every species were formed in the first place, and then their vital principles superadded, can it be supposed that this is the manner in which the structures of any of their progeny are now formed? Has any

* "But mere composition of matter does not give life; for the dead body has all the composition it ever had; *life is a property we do not understand.*" — *Hunter on the Blood*, p. 90.

† *Barclay*, p. 485.

physiologist ever observed an animal or a plant whose visible structure had not been formed by successive processes of organization? or ever seen a process of organization which did not indicate the previous existence of a vital principle? Nay, were we to trust either to the evidence of our sense or our reason, should we not say that, in our days at least, the structure appears to be rather superadded to the vital principle than the vital principle superadded to the structure? To repeat an observation formerly made, it is upon this hypothesis alone that Cuvier and other naturalists have concluded, that plants and animals which happen to be found in a fossile state had formerly been alive: but the question occurs, what gave them life? or what preceded their organization? Mr. Abernethy supposes a subtle substance of a quickly and powerfully mobile nature, which pervades every thing, and appears to be the life of the world; a substance which he thinks may be considered as a distinct and active principle, not confounded with intelligence of any kind." 488.

This notion he ascribes to Mr. Hunter; but every body knows, that there is scarcely a notion more ancient than this *anima mundi*, diffusing life and motion through the universe, though devoid of intelligence itself. This vital principle, Mr. A. seems to attribute to electricity. "Thus," says he, "if the vital principle of Mr. Hunter be not electricity, at least we have reason to believe it is of a similar nature, and has the power of regulating electrical operations." Yet, it is singular, as Dr. Barclay shrewdly observes, that it did not occur to Mr. Abernethy, that the power of regulating electrical operations belongs more properly to an electrician than to electricity—to the agent directing, rather than to the material directed. But how can it be conceived, that this unintelligent and unconscious material, (whatever it may be,) should so vary its modes of operation, as to construct the almost innumerable species of organized forms to be found in the animal and vegetable kingdoms—each constructed on a plan, and each plan different from another? Is it not far more natural to suppose, that every animal has a specific organizing principle, with specific powers to organize, to feel, and to be guided by specific instincts? and, that the individuals of the human species have, in like manner, a specific principle, not only to organize and to feel, and to be guided by specific instincts, but even to reason?—Every thing, indeed, seems to support the probability of this opinion, though some speculative physiologists would have us believe, that one subtle unconscious substance is capable of beginning, or if not of beginning, of carrying to perfection, when once begun, all the various species of organisms; and, that a common sensitive principle, in the same way, is sufficient to account for all kinds of sensations.

"But must nature be compelled to accommodate herself to their conceptions and to their inclinations? Is not her right to dictate to them better than their right to dictate to her? When God said, Let there be light, there was light; but can they pretend to any such power? Certainly not: they can indeed, as often as they choose, call spirits from the vasty deep, and so can we, or so can any man; but will they come when either they or we do call for them?"* 494.

The plain truth is, that the way in which the Supreme Being has bestowed upon us, and upon every species of animals, that singular power by which we can move, by an act of the will, those masses of matter, which constitute our bodies, must to us remain for ever inexplicable. But the fact may enable us to form some idea how the Creator, by a mere act of *His* will, could call the universe into existence, and still uphold it without either labour or fatigue.

"Might we here be permitted to form a conjecture on a subject which so far exceeds our comprehension, to us it might seem, when he called into existence those spirits which inhabit organisms, as if he had said, You inferior spirits require organisms of gross materials to hold communication with the visible and tangible objects around you; and as my will is every where obeyed throughout the extensive regions of space, I have willed that all of you construct organisms suited to the faculties with which I have endowed you; but as I have not bestowed upon you faculties to comprehend their mode of formation, or their mode of acting, I have ordained, that when you shall will, your organism shall obey, though how they obey you shall never know, being creatures of too limited intelligence to comprehend the wisdom, the power, the ways, and the doings of the Most High." 499.

Our author's section on animal magnetism, and particularly the system of *Deleuze*, (or, without meaning a pun, the system of *delusion*;) we shall pass over in a very cursory manner. We are surprised, indeed, that Dr. Barclay should have taken the pains to wade through such a sea of absurdities, with the expectation of finding any thing else than the dreams of credulous, crack-brained, or designing men. He has waded through it, however, and he asks, whether the several phenomena of animal magnetism, *allowing that they are stated correctly*, establish any general fact with which we were not previously acquainted? Have not most of us, he observes, felt, when there was nothing to arrest our attention but insignificant nods, shrugs, waving of hands, or *tiresome drawing, monotonous tones of an uninteresting, long-winded*

* See Shakspeare's King Henry IV. part i. act iii. sc. 1.

orator, that we have irresistibly been compelled to sleep?*" Might we not have learnt from daily experience, that the voluntary motions of our bodies are under the direction of some vital principle within us? "and that this principle and our voluntary motions may also be brought under subjection to another principle of the same species?" Do we not see the voluntary motions not only of one or two, but even of thousands in fleets and armies, in a great measure regulated by the will of one individual? Have we not observed that will communicated to thousands almost instantaneously by a word, by a sound, or a visible sign, and afterward operating through their hopes or their fears, their astonishment, or their despair, so as to affect their thoughts while awake, and their dreams while asleep?† These facts, by their familiarity, are passed unnoticed, while we wonder at the phenomena of animal magnetism that are nothing more than those which we every day see.

After giving some short account of the opinions of Grew, as contained in his *Cosmologia Sacra*, but which need not detain us here, Dr. Barclay offers a brief "summary view" of what our readers have seen more in detail in the course of this article. We do not deem it necessary therefore to make any recapitulation of those details here, but shall notice the concluding portion merely of Dr. Barclay's summary.

After remarking on the inadequacy of all those explanations which have been offered by philosophers, and which we have amply delineated, Dr. Barclay adverts particularly to the insurmountable difficulty which the Sceptics have found in explaining how the *first parents* of the different species of animals might possibly have been formed. In fact, the Materialists studiously shun this question, and that under the pretence that such inquiries might lead them into the *regions of fancy*—regions, forsooth, in which they are not at all disinclined to roam upon all other occasions! They saw distinctly that first parents could not be formed, either in the womb or in any other organ of a parent, at a period when no parent existed—in short, they saw the in-

* We suspect Dr. Barclay has a sly hit at some other than magnetic orators in the latter part of this passage.

† Every body knows the mental contagion, for instance, which spread so rapidly through the hospital at Haerlem, and which, from the sight of a single individual falling into fits, diffused itself in the form of epilepsy through most of the young persons in the house, and was afterward as suddenly checked by Boerhaave without employing other means than that of inspiring the patients with the dread of much greater horrors, if they ever again submitted to such fits.

superable difficulties which they had to encounter, if they allowed their fancies to ascend to the origins of things—and to avoid this embarrassment they chose to assert that all events move in a circular, and that all species of plants and animals may have been eternal!—imagining that by this contemptible subterfuge they would evade the obvious question—“how came the first parents to be formed in a manner so different from that by which their progeny is formed now?” We believe, with Dr. Barclay, that the account of our first formation, as given by Moses, is the best that ever was promulgated, whether that writer was inspired or not. The cause which he assigns is an omnipotent, omniscient, omnipresent Being, invisible, self-existent, and eternal, to whose will the whole universe is subjected more thoroughly and completely, though not more inconceivably, than our bodily organisms are subjected to our wills. Moses says, and so think we, that this supreme Being did create man, as well as the earth he treads on, by the fiat of his will, giving him the dominion over other animals, and endowing him with the power of judging between what is morally right and wrong—with the faculty of reason—with the capacity of tracing phenomena to invisible causes; and ultimately to the Creator himself. The original mandate, “be fruitful and multiply, each after its kind,” was obeyed at the beginning, and it is in force to this day. It was issued to animals, and to man, by the same Deity.

“Nor let man envy the honour thus bestowed on his fellow-creatures. He has obtained the dominion over them: so let those who are conscious of this marked distinction, who are capable of tracing the origin of their species to the first of causes, and who feel that they are under the protection of an omnipotent, omniscient, omnipresent being, self-existent, benevolent, and just, be therewith content, and congratulate themselves that they are not reduced to that low and degraded state of some modern physiologists, who with all their efforts, have never been able to trace their origin beyond some gross collections of matter, some occult qualities, or some unknown chymical affinities of mud or atoms; and who, as to religion, have only to console themselves with the thought, that they are at least as far advanced as the Caffres, the Hottentots, and the untutored savages of Brazil.” 531.

Thus concludes Dr. Barclay's work—a production equally creditable to his head and his heart. The motives which have led him through such toilsome researches are unquestionably of an honourable and commendable kind, for they unequivocally point to the welfare and happiness of mankind at large, by inculcating veneration for the Deity, respect for themselves, good-will towards their fellow-creatures, and charity

towards the whole of animated nature. But the peculiar or local tendency of the work, we conceive, is to show the rising generation of the profession the folly of prying into first causes, by portraying the wild, contradictory, and ridiculous theories into which the most eminent philosophers of all ages have been led, when attempting to unravel those mysteries which Nature, or Nature's God has thought proper to veil from human eyes. It was with the view of furthering the objects of Dr. Barclay's work that we have entered so extensively into its analysis, and endeavoured to convey a pretty accurate idea of its prominent features to our readers. We have little to add to those remarks which we have occasionally made in the course of the article, now protracted beyond what we originally calculated on. The psychological turn which anatomical and physiological investigations have lately taken, will, we fear, be injurious in many ways. These investigations will lead us from the direct path of our own proper studies, and tend to unsettle not only the minds of professional men, but of the vulgar themselves. In the present intellectual state of society it is as utterly impossible to have one set of opinions for the high and another for the low, as to have two suns to see by, two atmospheres to breathe by, or two kinds of sensorium to feel by. "For opinions," as a modern author justly observes,* "like showers, are generated in high places, but invariably descend into low ones, ultimately flowing down to the people, as the rains unto the sea." It is quite evident that the *doubt* of a future state of existence must be quickly followed by a *denial* of that state; and it is difficult to conceive what would be the effects of a general revolution in the minds of men respecting this momentous question. We cannot but think that, in such a case, all that endears us to our fellow-men, and all that exalts us above the beasts of the field, must be swallowed up in the paltriness of the present and nothingness of the now! If a few sceptical philosophers have exhibited examples of virtue, honour, charity, and other Christian virtues, we must recollect that all men are not philosophers, and that when the belief of a future state of existence was thrown off by the multitude, in the French revolution, all the dark traits of human nature instantly became prominent, and man proved himself (without the curb of religion or morality) to be "more fierce than tigers on the Lybian plain." Gibbon, when quaffing noyau, and ridiculing the doctrine of a future existence, was asked what would pro-

* Mr. Coulton.

bably be the effects of this scepticism on society in general. His reply was this:—"the doctrines we are now discussing are, like the liqueur we are now drinking;—safe and even pleasant to us, who know how to use, without abusing them;—but dangerous, deleterious, and intoxicating, if either the liqueur or doctrines were broached in the open streets, or exposed to the discretion of the mob." Experience has now taught us that though bolts and bars may keep noyeau from the multitude, they are quite inefficient in confining sceptical doctrines, which are too volatile for such imprisonment. It may be urged, (as it has often been urged,) that the promulgation of truth can never be ultimately injurious to society. But how are we to ascertain the *truth* of these doctrines to which we are objecting? They are but speculations, and whether true or false, their promulgation is attended with bad effects in the mean time. We have often wondered how medical men, who daily witness the benign influence of religion in mitigating the miseries of sickness, and disarming the terrors of death, can bring themselves to broach doctrines subversive of all those consolations which the afflicted derive from the belief of a superintending Deity, and another and better world! We cannot but think that this wanton trifling with the feelings, the hopes, and the fears, of so large a portion of mankind, is little indicative of philanthropy in the breast, or good sense in the head, of the writer. It has been well observed that—"in literature our taste will be discovered by that which we give, and our judgment by that which we withhold." It would be for the benefit of society, and the credit of the medical profession, if such of its members as held sceptical opinions were to keep them confined within their own bosoms till the multitude are as great philosophers as themselves, and as capable of discussing metaphysical subjects.

God forbid that we should be advocates for fettering the human intellect, and checking the liberty of discussion. But while indulging ourselves in the full freedom of *thought*, we have no right to issue *words or writings* that may be prejudicial to the community of which we are members, and to which we owe our safety. There are many and cogent reasons why the medical philosopher should avoid, as much as possible, those metaphysical discussions that involve religious or political tenets. By the profligate, licentious, and factious portion of society (no inconsiderable portion) his speculations will be adopted only to turn them to the worst of purposes. By the fanatical portion, and by the intolerant or crafty part of the priesthood, they will be converted into engines of persecution against himself—while by the truly

philosophic portion of society (which is comparatively small) the promulgation of these doctrines will be condemned, even if the principles they contain should be embraced. If indeed we look back into the records of the past, we shall find that an absolute freedom in discussions involving religion, morals, and politics, never yet existed in any age or country. It is one of the dreams of modern philosophy. The superstition of the Lacedemonians prohibited all inquiry on the subject of religion—and in Athens, the ancient city of intellect, the lives of Æschylus, Socrates, Alcibiades, and many others, demonstrated that neither genius, learning, courage, nor the softer virtues, could screen their possessors from the persecutions of an implacable priesthood. In Rome it was toleration, not freedom. In Europe, wherever freedom has been allowed, licentiousness has followed. We would therefore recommend to our brethren a close adherence to the legitimate subjects of our own science, (where unhappily there is but too much to be yet accomplished) leaving all metaphysical speculations to those whose lives are spent more in the closet than in society—in contemplation than in action—in ascertaining the attributes of the soul, rather than in watching the diseases of the body.

II.

Lectures on the Structure and Physiology of the Male Urinary and Genital Organs of the Human Body, and on the Nature and Treatment of their Diseases; delivered before the Royal College of Surgeons in London, in the Summer of the Year 1821. By JAMES WILSON, F.R.S. Professor of Anatomy and Surgery to the College; Lecturer on Anatomy and Surgery at the Hunterian School in Great Windmill Street; and one of the Vice Presidents of the Medico-Chirurgical Society of London. One vol. 8vo. pp. 438, three plates. London, September, 1821.

THIS is the third and final volume of Mr. Wilson's Lectures before the College of Surgeons. It is, also, not the least valuable and interesting of the three. We are happy to find, that the opinion which we expressed of its two predecessors, has been amply confirmed by the profession at large—their reception by the public having been most favourable. The present work is dedicated to Henry Cline, Esq. one of the Patriarchs of Surgery, whose extensive knowledge adds lustre to the profession, and is only surpassed by his liberality of sentiment and integrity of principle. Happy would it be

for the faculty, if the junior members would look to the examples of those distinguished individuals who are at the head of the profession, and imitate their conduct to each other, and to the public at large! We hope and trust, that there is a growing spirit of urbanity and magnanimity diffusing its genial influence among the ramifications of medical society, and which will one day harmonize its members, to an extent far beyond what is contemplated by those, who keep their eye fixed on the dark side of human nature, and neither hope nor strive to brighten the prospect.

It is evident, that lectures, delivered before such a body as the Royal College of Surgeons, must be divested of opinions founded in ignorance, and secured from the pernicious effects resulting from empirical practice, however artfully and speciously disguised. They come, therefore, in a shape and garb, (independently of the character, experience, and industry of the author,) which render their reception doubly welcome, since it has but too often happened, that these subjects have been presented to the public and to the profession, enveloped in the mystery with which ignorance, knavery, or quackery, chose to clothe them.

The work consists of fifteen lectures, and embraces an amazing range of important matters which it would be impossible to even enumerate, much less analyze, in an article of this kind. We must, therefore, be very concise, as well as desultory in our extracts, and notices of the contents of this volume.

In the *first* lecture, after some introductory observations, Mr. Wilson presents a neat analysis of what has been written on the subject of urine itself, by Wollaston, Bostock, Brande, Marcet, Prout, Berzelius, &c. He then takes up the anatomy of the kidney, ureters, and bladder, which occupy the first and second lectures. In the third lecture, Mr. Wilson enters on the anatomy and physiology of the genital organs, viz. the scrotum, spermatic cord, and testicles. The fourth chapter treats on secretion generally—on the structure of the testicle—on its first formation; and on its descent to the scrotum. The fifth lecture is on the vesiculæ seminales, prostate gland, and Cowper's glands. The sixth lecture delineates the structure and functions of the various parts composing the membrum virile, and here ends the strictly anatomical and physiological part of the course, into which we could not, for obvious reasons, enter in this article. We need hardly observe, that Mr. Wilson's anatomy is rigidly correct, while his physiology is that which is founded on the best authenticated facts hitherto discovered, and the opinions of the best physiologists who have written on these subjects.

In the seventh lecture, Mr. Wilson commences the pathology of the genito-urinary organs, and first of all, offers some general remarks on calculous concretions. So much has been introduced into this Journal, of late, on the subject of urinary calculi, that we shall pass over this part of Mr. Wilson's work, remarking merely, that the best information is drawn from various and respectable sources, and condensed into a narrow compass. We shall extract the following case, showing how a calculus, and that of the mulberry species too, may lie for many years in the bladder, without causing much inconvenience—at least in the organs immediately concerned.

"Several years ago I examined, along with Mr. Cruikshank, the body of a gentleman who died of a dysentery at the advanced age of eighty-one. For some years before his death he was a constant attendant on the lectures delivered by Dr. Baillie and Mr. Cruikshank in Windmill Street, when I was the demonstrator of anatomy in that school. I frequently, at that time, dissected bodies for him; and, before his death, received a paper from him with a detailed account of all the symptoms of disease which he could remember as having occurred to him during the last forty years of his life, with a view of having the parts affected by them examined by Mr. Cruikshank and myself after his death, he having inserted a clause in his will to that purport. I mention this, particularly as among the various parts of the body he had named, neither the kidneys nor bladder were alluded to; and as he had long been professionally attended by Mr. Cruikshank and myself, had any difficulty of passing his urine occurred, it would not have been concealed from us. Notwithstanding this, a very dark-coloured oxalate of lime or mulberry calculus was found in his bladder, the bladder itself exhibiting no particular diseased appearances. The projections from this calculus were rather long spicula with blunted points than tubercles; and probably from their shape, preventing at any time the whole surface of the calculus from touching the sides of the bladder, allowed the urine to pass into the urethra, so that no obstruction to its flow ever took place. What could have prevented such calculus from irritating and bringing on the other symptoms of stone I know not; but I have met with other instances where the oxalate of lime calculus has produced but little comparative irritation, although, I believe, it is a generally received opinion that it produces the greatest." 236.

A recent case of this kind occurred in the practice of Dr. Paris and Mr. Chilver. The patient was walking in St. James's Park on the 6th of April, 1820, and feeling fatigued, went to sit down on one of the benches, which, from its unexpected lowness, gave him a considerable shock, that probably dislodged the calculus, from the sac in which it had reposed. He was immediately seized with painful dysuria, which continued till his death, six days after the accident. In this patient, the existence of a calculus was never suspected,

till Mr. Wilson passed the catheter after the accident happened, and struck against the stone: A calculus of the mulberry kind, weighing 631 grains, was taken from the bladder after death. The interior surface of the bladder was found much inflamed, and a sac was discovered in which the stone had lodged.

The following is the pathological state of the bladder, after the long-continued irritation of a calculus.

“ The constant irritation of the coats of the bladder produces a considerable thickening in their substance, but principally in the muscular coat, the packets of its fibres becoming very large, and incapable of that dilatation which they formerly possessed; their irritability however increases, so that they are excited to contract upon a few drops of urine; and thus, by pressing the stone against a part already too sensible to pain, an almost constant state of suffering is kept up. The bladder in time becomes more diseased, the inner coat more constantly inflamed, and sometimes ulcerated, all the unfavourable constitutional symptoms increase; and unless an operation is performed which removes the stone, the patient's sufferings are only ended by death.” 239.

Mr. Wilson here introduces a brief view of the treatment of calculous complaints, chiefly compiled from the writings of Brande, Marcet, Prout, and the best modern authors. In respect to the high operation, Mr. Wilson does not give a decided opinion. He seems to think that the high and the lateral operations have been attended with nearly equal success.

We may here be permitted to make a short digressive allusion to the subject of the recto-vesical operation of Vacca, described in our last number. Since that paper was printed, we have been informed by Sir Astley Cooper, that the operation, as detailed by Vacca, was performed by him at Guy's Hospital, twelve years ago, and the man died. It was also performed at the London Hospital, by Mr. Headington, and the wound never closed afterward. We have also been informed by a very eminent surgeon of this metropolis, that in the lateral operation, he, by accident, during a jerk of the patient, carried the external incision into the rectum, and the consequence was, a fistulous opening into the urethra at that part, which continued, in spite of every means which could be employed to close it. We throw out these hints, not to discourage a trial of the operation, but to put surgeons on their guard. Perhaps, the precaution which Vacca used, of touching that part of the wound which corresponds to the incision of the rectum, and that portion which remains in the perineum, with lunar caustic immediately the danger of inflammation is over, and suppuration is established, may have

greatly tended to obviate urinary fistulæ, as sequelæ of this operation.

The tenth lecture is "on excess of albumen and urea in the urine," and on some affections of the kidneys. Mr. Wilson justly remarks, that in *studying* the nature of diseases we cannot observe those arbitrary and artificial distinctions between physic and surgery, which common usage and mutual consent have set up in *practice*, in this and some other countries. Local and constitutional diseases must be studied by both physician and surgeon, as well as the general practitioner.

On the disposition to pass albuminous urine, Mr. Wilson makes some observations; but acknowledges how little we know of the means of counteracting it. This inordinate separation of albumen from the blood often occurs in dropsical patients, and our readers know that Dr. Blackall considers the phenomenon as indicative of venesection. But the Dublin Hospital physicians have long since shown the total uncertainty of this indication, and we believe it is now generally disregarded by the most experienced physicians.

"We know," says Mr. Wilson, "that in local inflammations the coagulable lymph is separated from the blood, and it may be also separated in the kidneys, if their secreting action is too strongly excited, and then bleeding might do good; but before this plan is adopted, it should be ascertained whether the dropsy is the cause of the separation of albumen, or the effect, if it proves to be the cause, by bleeding we should increase the disease. I have seen instances, in which the muriated tincture of steel proved very useful in lessening, and I believe in removing, this complaint." 265.

Excess of urea is not unfrequently met with, especially in children, and in people depositing the phosphates. In these cases the urine is generally pale—sometimes high-coloured, like porter and water. When recently voided it reddens litmus paper, and is, for the most part, free from sediment. Nitric acid produces speedy crystallization, and then an abundance of urea is discovered. Dr. Prout thinks that excess of urea has been confounded with diabetes insipidus, though greatly differing from that disease.

"Where urea is in excess, there is usually a frequent and almost irresistible desire of voiding the urine: this does not arise from fullness of the bladder: for, in general, a small quantity is voided at any one time; but from the frequency, the total quantity voided in a given time is greater than natural. This quantity is augmented in cold weather, and is also increased by all causes producing mental agitation. There is often a sense of weight or dull pain in the back, and an occasional irritation about the neck of the bladder, which sometimes extends along the urethra. The pulse however is not

affected, and the tongue is clean : there is no remarkable thirst, nor is there any craving for food, nor are the functions of the stomach and bowels much deranged." 266.

In Dr. Prout's experience a majority of the cases of this kind, were persons who early in life had been addicted to habits which weaken the genital organs. He thinks that the train of symptoms, if suffered to proceed, may sometimes terminate in diabetes, or in a deposition of the phosphates. Stimulating remedies, such as the *copaiba*, have been found to increase the complaint. Sedatives, especially opium and *hyoscyamus*, combined with aperients, are most efficient in suspending, if not removing the complaint. On diabetes, Mr. W. makes a few remarks. He has inspected three bodies who died of this distressing disease, and in none of them were the kidneys enlarged.

"In two of these I found that vascular appearance which Dr. Baillie has described, where the superficial veins were much fuller than usual of blood, forming upon the surface of the kidney a most beautiful network of vessels. In one of these cases the renal capsule was enlarged, and contained a fluid in a circumscribed cavity, which in colour was like the bile when mixed with water ; and in both cases the liver was sound. The spleen was sound in one of these, but tuberculated in the other. In the third case, the liver was tuberculated, and much shrunk in size ; the lungs also were filled with scrofulous tubercles." 269.

It is needless to say that this is a most indomitable disease. In fact, we consider it generally as a breaking up of the constitution, or of some vital organ, and therefore it is one of the numerous outlets by which Nature removes us from the moral, and mingles us with the physical world.

The various organic diseases of the kidney, which Mr. Wilson has noticed, we must pass over. Our attention, however, was strongly arrested by a melancholy case of ignorance and temerity detailed at page 288—a case not very likely to happen in these days, when medical and chirurgical knowledge is so widely diffused. One would hardly suppose that suppression and retention of urine could be confounded together—yet Mr. W. has known an instance of the mistake involving the life of the patient.

A musician of some celebrity, after some intemperance, became alarmed at not having made water for some hours. The surgeon and apothecary (now dead) tried the usual means employed for retention of urine without effect. He then introduced a catheter into the bladder (as he thought) with much difficulty. No urine flowed, but some feculent matter was found adherent to the sides of the instrument.

Immediately after this the abdomen swelled, and symptoms of peritoneal inflammation came on. Dr. Pearson and Mr. Wilson were called in, and found the patient in *articulo mortis*. There was no tumour above the pubis, nor was the bladder found distended, when examined per rectum. Mr. Wilson passed the catheter into the bladder with ease, but no urine followed. The patient died; and, on dissection, a hole was found in the coats of the bladder, on the back part of its cavity, between the entrance of the ureters, corresponding with the size of the catheter. The hole communicated with the cavity of the abdomen, as it was above the reflection of the peritoneum from the rectum to the bladder. The peritoneum round it was much inflamed, and partially adhering to the rectum. Another hole, exactly corresponding to the first, was found on the forepart of the rectum, entering the cavity of the gut. Both holes seemed to have been made by the same instrument. The case was evidently a suppression and not a retention of urine originally.

No general rules can be laid down for treating suppression of urine. In those cases dependent on inflammation of the kidney, bleeding from the arm and from the loins will sometimes restore the secreting power of the kidney. Aperient medicines will also be necessary. In general, however, this dangerous symptom is a prelude to death from other diseases.

On retention of urine, Mr. Wilson makes many good remarks, but none of them containing any novelty.*

The 12th lecture is on diseases of the bladder and prostate gland, of which we cannot offer any analysis, the matter not being adapted for that process. The 13th lecture is in continuation, and on strictures of the urethra; for which we must refer to the work itself. The 14th lecture continues the subject of stricture, embraces fistula in perinæo, and takes in the operation of puncturing the bladder.

Respecting caustic bougies, we apprehend that not all the preparations placed in the college museum, by Sir E. Home,

* We know an old and experienced army surgeon, who assured us, that, in his whole life, he never saw an instance where retention of urine, if left to itself, or treated by the common means, failed to do well, without any recourse to the knife. He affirmed that puncturing the bladder never was necessary in retentions of urine. Although we cannot agree with him so far as this, yet we believe that cutting into the bladder is sometimes performed prematurely, or rather unnecessarily. The observations of our old military friend were recalled to our memory lately, by hearing a discussion on this subject in a medical society of the metropolis, where a similar doctrine was maintained by an individual present, to the astonishment of many of the surgeons around him.—Rrr.

will induce the surgeons of the present day to embrace again the baronet's mode of treatment. Were the *per contra* preparations, which now sleep in the silent tomb, arranged in opposition to those in the college, what a fearful balance would there be against the caustic! But we need not arraign the fallen. The armed bougie is no more.

The last or 15th lecture is on diseases of the testicle—and impotence from bodily and from mental causes. On these subjects Mr. Wilson delivers, as usual, solid information, but without any pretensions to novelty. This work, like those that preceded it, is a good text book for the young, and a useful remembrancer for the old practitioner.

P. S. The foregoing short notice of Mr. Wilson's work had been prepared for our last number, but we had not room for its insertion. We have now the melancholy task of recording the death of a man, from whom we imbibed our first rudiments of anatomy, and whom we never ceased to respect as a master and esteem as a friend. His able colleague, Mr. Charles Bell, in a pathetic address to his pupils, as published in the *Medical Repository* for December last, informs us that Mr. Wilson was a native of Ayrshire, in Scotland, and came to town when very young, under the protection of the late Mr. Cruikshanks, who was, first, librarian, then assistant to Dr. William Hunter. At the death of Mr. Cruikshanks, Mr. Wilson became assistant lecturer with Dr. Baillie, who finally, and in a most liberal manner, resigned the professorship to Mr. Wilson. This gentleman carried on the anatomical lectures with great credit to himself and advantage to the public for nine years, viz. till 1812, when Mr. Charles Bell purchased Mr. Wilson's interest in the school, since which time these gentlemen conducted the anatomical tuition with harmony among themselves and satisfaction to the numerous pupils of this distinguished school. We shall quote the following passage from Mr. Bell's address, for the accuracy of which we ourselves can vouch from 25 years personal knowledge of the deceased.

“In speaking of my late colleague's character for science and a knowledge of anatomy, it is a consolation to me, that I have only to repeat what I delivered before you while he was yet with us, which he heard through some of you, and which gratified him: I say, it is a satisfaction to be able to use the same words of praise while our friend lives, as after his death. It proves that we do not see through the magnifying influence of a recent loss, nor allow ourselves to be affected by vain regrets. He was, what few are, early and regularly taught anatomy,—had the best teachers in his youth, and a correspondence with the first men while he lived? As

I said to you on a former occasion, there descended through him, by a regular succession of pupillage, those views of the anatomy, that accuracy and minuteness of knowledge, and those methods of teaching, which had characterized the Hunters, and those who immediately succeeded them,—and to whom this country owes what credit it has obtained for a knowledge of the human structure.

“ You can testify, Gentlemen, the precision and minuteness of his demonstrations, and the rigid manner in which he performed his duty to *you*, exacting attention to the last minute of that time which ought to be given to the lecture, and never permitting his endeavours to relax when your interests were concerned.

“ His discoveries did not embrace any great system : but, what was of more advantage, they extended to every department of the demonstrations of the anatomy : and this is particularly evinced in the collection of anatomical preparations which he made, and which is still before you.

“ He was Professor of Anatomy to the College of Surgeons ; and there, where the College have drawn together the most eminent to grace their Institution, he was distinguished by the propriety of his manner, suiting his own character and the place ; but not in manner only was he distinguished as a Professor, but in method and matter also.

“ My colleague was a man of great good nature, in the best sense of the word. He had no envy or repining at the success of others ; and many whom he had taught, and whom he had assisted in early life, knew better than he did, by what means fortune was to be attained.

“ He had his full share of the harassments of a professional life. It was in the country, and retired with his family, in his little, simple, rural cottage—that his friends, and especially those younger friends, some of whom I address, will most love to remember him. There his cheerfulness and hospitality, with a manner kind, attentive, and without ostentation, exhibited the goodness of his heart ; while his willingness to promote and to partake of every youthful gratification evinced the simplicity of it.

“ No man had warmer friends ; and this is the best praise a man can have—warm and steady friends through life :—the names of Dr. Baillie, Mr. Cline, and Mr. Abernethy, among these, are sufficient eulogy of my departed colleague.

“ He has left a son, who has been remarkable in every situation from early youth, where scholarship, taste, and correct conduct could give distinction : just entering life, he has sustained the heaviest loss any man can suffer ; but fortunate in this, that his family can look forward with confidence to him as their comfort and support.

“ The last time you saw Mr. Wilson in this place, he complained to me of his head, and pointed to a particular spot ; the frequent return of this pain he attributed to the severe shock he had received on his carriage breaking down some time ago.

“ On Thursday morning he had complained of being unwell—he felt his hand unsteady, but he breakfasted, shaved, and had sat

down to write a letter to a patient, when he felt himself taken exceeding unwell ; he rose, rung the bell, and sent for his son, saying, he was very ill, but desiring that Mrs. Wilson and his daughters should not be alarmed.

“ Mr. Wilson called his house pupils to his assistance, and finding his illness still increasing, he sent for Dr. Baillie. In the mean time he was bled and cupped. On Dr. Baillie’s arrival he was still capable of speaking, and laid his hand on his left breast, as the seat of his uneasiness. Dr. Baillie prescribed for him—a blister was put on the nape of his neck, and sinapisms to his feet.

“ In an hour Dr. Baillie returned, and other physicians saw him ; but he was sinking, and died at half past twelve.

“ On examination of the body, the heart and vessels were found unusually empty of blood, and a serous effusion had taken place on all the surfaces of the brain : with the exception of some ossifications of the valves of the heart, all the viscera appeared natural.” 514. *Med. Repos. Dec. 1821.*

Thus has been suddenly called away from us, in the zenith of his faculties, one of the best anatomists and ablest teachers of the present enlightened era.

Abstulit clarum cita mors Achillem !

But what availeth grief for the dead ? It is a wise and happy dispensation of the God of Nature that the daily sight of death induces not despair in the living. On the contrary, every one of us secretly aspirates, to the latest period of our existence, the following sentence of the poet :—

Et mihi forsán, tibi quod negarit porriget hora.—HOR.

III.

De l'Alienation Mentale des Nouvelles Accouchees et des Nourrices :—that is, on Mental Derangement, as it occurs after Parturition, and during Lactation. By M. ESQUIROL, Physician in Ordinary to the Salpetriere.

(Annaire Medico-Chirurgical.)

MANY are the maladies to which woman is subjected while performing her allotted function of recruiting the species. Of these a very distressing one is that temporary alienation which so frequently succeeds parturition. It is a charitable, and we trust not a chimerical, supposition of M. Esquirol, that many of those shocking instances of infanticide, which we hear of, are the result rather of momentary derangement of the intellect than deliberate cruelty. Thus he knew a

young woman become pregnant, and who did not conceal her pregnancy. She made preparations for her accouchement. She lay-in in the night, and next morning the child was found lying in the privy mutilated by numerous wounds made apparently by scissors. The mother was found in bed. She was conveyed on a litter to some miles distance, and during the journey uttered some incongruous expressions. Being interrogated three days afterward, she avowed the crime, made no defence, and did not appear to express or feel the slightest regret at the horrible transaction. She refused all kind of sustenance. Is it not evident, says our author, that this unhappy young woman laboured under some aberration of the intellect?—We are of his opinion.

The number of women who become deranged after parturition and during lactation, is more considerable, M. Esquirol asserts, than is commonly imagined. Of the females received into the Salpetriere a tenth or twelfth have become insane under the above-mentioned circumstances. This affection is much more common in high, than in low life. It is curious, however, that in the *former* class, it seldom takes place after weaning: whereas, it is of comparatively frequent occurrence in the poorer orders of females, after the removal of the child from the breast—a fact which may admit of some physiological speculation, but which our author accounts for by the care which the rich take, and can take, of themselves at such periods.

M. Esquirol refers to the 3d book of the Epidemics of Hippocrates for instances of this disease, and quotes the 14th case as a probable example, in the following words.

“Peut-etre l’observation XIV. est-elle une manie aigue. Il s’agit de la femme d’epicrate, qui, ayant accouchée de deux jumeaux, delira dès le deuxieme jour de l’accouchement, et mourut phrenetique le vingt et unième.”

The practice of frequently quoting the works of Hippocrates, and finding descriptions of all diseases in these ancient records, induced us, many years ago, to carefully con over every line of the multifarious writings attributed to the coan sage. The result was not what might be expected. Instead of being impressed with admiration, or rather adoration of these writings, we became thoroughly convinced that they were a chaos of incongruous facts and absurdities which far from repaid the labour of wading through them. We shall probably be deemed Goths or Vandals for this declaration; but it has the merit of being a candid one. To show how loosely, and sometimes falsely, the “divine old man” is often quoted, we shall here insert the original case, being a short

one, which our author has alluded to, as a specimen of puerperal mania two thousand years ago.

“Ægrotus decimus quartus. In Cyzico mulierem, quæ gemelas filias magna difficultate peperit, et non valde purgata est, primum invasit febris horrida, acuta. Capitis et colli gravitas cum dolore. Insomnis ab initio, taciturna ac tetrica et non obsecundans. Urinæ tenues et decolores: siticulosa, anxia plerumque, alvus erroneo modo turbata, et rursus adstricta. *Sexta, ad noctem multum delirabat, nihil dormivit. Circa undecimam insaniit, et rursus resipuit. Urinæ nigræ, tenues: et rursus tempore interposito oleosæ. Et alvus multis tenuibus turbata. Decima-quarta convulsiones multæ, extremæ partes frigidæ, nihil amplius intelligebat. Urinæ suppressæ sunt. Decima sexta voce destituta est. Decima-septima mortua est: phrenitis.*” *Popularium, lib. III. Sect. III.*

Now we can see nothing in this case but a common instance of puerperal fever, not puerperal mania. She was seized, on what day after delivery is not stated, with ardent fever, and it was not till the sixth day—(not the second, as Esquirol says)—that she became delirious. She died too, on the 17th day, (not the 21st, as our author has it,) the disease being pronounced phrenitis by Hippocrates. Thus we see how many errors have crept into a single case, and how little satisfactory is the case itself after all.*

Levret and Zimmerman observe that mania is to be apprehended when the lochia do not flow properly, and when the breasts do not swell by the afflux at the natural period; but experience shows that other affections are the more common consequences of disturbances in the lochial discharge.

* Our French brethren, of all other people, pride themselves the most on being strict disciples of Hippocrates—that is to say, of carefully watching diseases, and religiously avoiding all interference with their progress. The wildest absurdities of the coan sage, are as much respected by these lively and ingenious people, as those common truths or facts, which the “divine old man” could not help stumbling on. Thus, our author seems to marvel much that Hippocrates should be wrong in the following aphorism: “Mulieribus quibuscunque ad mammas sanguis colligetur, insaniam significat.” *Lib. V. Aph. 40.* He quotes several instances of a directly contrary nature. We believe there is hardly a charlatan in London—even the water-doctor in Berners’ Street, that would not be ashamed of issuing such an aphorism as that which lies in immediate sequence of the one quoted by M. Esquirol. “Mulierem si velis cognoscere, an prægnans sit, ubi dormire volet (incænatæ) aquam mulsam bibendam dato. Et siquidem tormen habuerit circa ventrem, prægnans est; si vero non, prægnans non est.” *Aph. 41. Lib. V.* Such are the absurd puerilities that command our respect merely because they are enveloped in the rust of antiquity! But why should it be called antiquity? Is not the world older now than it was three thousand years ago? and are not we consequently the *antiqui* both in time and knowledge?

Of 92 cases of puerperal mania, in our author's establishment, sixteen became insane between the first and fourth day of confinement. Twenty-one became alienated between the fifth and fifteenth days—seventeen between the fifteenth and sixtieth days—nineteen between the second and twelfth months of lactation. Nineteen were immediately affected with insanity on weaning their children.* From these facts it would appear—1st, that mental derangement is more frequent among those recently confined, than among those giving suck—2dly, that the danger diminishes in proportion to the length of time that has elapsed since the accouchement—3dly, that women are much more subject to the complaint immediately after weaning, than during lactation.

Puerperal mania is sometimes presaged, even during pregnancy, by melancholy presentiments in the mind; while exaggerated or unfounded apprehensions immediately prelude the explosion of delirium. Sometimes, however, the mania breaks forth without any premonitory symptoms. At the commencement of the disease there is a febrile state of the system present. Yet the skin is soft and moist, the countenance pale, tongue white, breasts flaccid. The abdomen is neither tense nor painful; but sometimes there is acute pain in the uterine region. The pulse is generally small, feeble, and concentrated—mean time there is either exclusive delirium; that is monomania, or aberration of intellect, on a single subject; or, more commonly, general mania. Sometimes profound stupor precedes phrenitis, which may be confounded with puerperal mania, unless attention be paid to the headach, redness of the eyes, aridity of the skin, tinnitus aurium, anomalies of the pulse, subsaltus tendinum, &c. which attach to the former malady, and distinguish it from the latter. Phrenitis, under puerperal circumstances, is generally mortal about the third or fourth day—rarely passing the seventh—the duration of mania may be prolonged to many months. Those mental alienations which arise during or subsequent to lactation, differ very little from those attendant on parturition, excepting a peculiarity of countenance which can only be known by experience.

The age at which this complaint most frequently occurs is that between twenty-five and thirty years—a period of life most prone to maniacal disorders from whatever cause.

* Dr. Gooch, in his excellent paper on puerperal mania, analysed in the first volume of this series, page 615, does not appear to allude to weaning in the etiology of the disease. Yet the 4th case, page 620, seems to be one dependent on this cause, and exemplifying M. Esquirol's observations.

Etiology of Puerperal and Lactation Mania. Hereditary predisposition—extreme susceptibility—former attacks of the same disease—these predispose to, and even in a few instances excite the malady. What is curious, there have been women who became insane *only* when they bore a male child—others who suffered after every *second* accouchement—and some who became alienated regularly in the third or fifth month of suckling.

The *exciting* causes are, for the most part, errors in regimen and moral affections. Of the former class, impressions of cold, however applied, form the most considerable proportion. The sudden weaning of the child, where proper precautions are not taken, becomes a frequent cause of this disease. The moral causes are to the physical, as one to four in proportion. In all ages the influence of mental emotions on parturient females has been duly appreciated. In ancient Rome a crown was suspended over the door where women were confined, to intimate that the house was a sacred asylum for the time. A nearly similar custom exists at Haerlem to this day. The panic of 1814, when the allies entered France, was a prolific cause of puerperal mania. Eleven out of thirteen that entered the Salpetriere that year, were attributable to this cause. The same happened in 1815, when Napoleon recommenced the scene of warfare and desolation. Causes which, under ordinary circumstances, would be productive of no inconvenience, act most powerfully and often destructively on the parturient female. Thus, 1st, a woman was safely delivered. Next day she sprinkled her bed with odoriferous distilled waters. The lochia are immediately suppressed—no milk comes to the breasts—mania is evinced the same evening, and continues ten months. 2d. A man threw a pail of water over his wife who had lately been confined. She became immediately maniacal, and never recovered from it! 3d. A young woman, 18 years of age, concealed herself and was confined in a granary during very cold weather. She became maniacal, and continued so for twelve months. 4th. A woman giving suck was overtaken by a storm—heated herself by running fast—and in that state crossed a brook knee-deep in water. The milk was suddenly suppressed, and melancholia ensued. 5th. Another woman, during lactation, was frightened by a thunder-storm. The milk disappeared from the breasts, and she instantly lost her reason.

Although a very rare occurrence, yet our author has known a few instances where puerperal mania took place without any suppression of the lochia. The same may be said of the lactal secretion. Our author enters into some

discussion, whether or not there is an actual metastasis of the lacteal secretion to the brain in this disease, and to the peritoneum in puerperal fever. We need hardly say that such a question would not now be agitated on this side of the channel. Metastasis of *action*, not of *matter*, is the prevailing doctrine of British pathologists.

Mental alienation succeeding accouchement is generally curable. Where there was not too strong a predisposition to insanity, more than half of our author's patients were cured—that is, out of 92 there were 55 restored to sanity. These restorations were marked by a return of the lochial discharge—by the accession of milk to the breasts—by copious leucorrhœa—by a mucous, sometimes sanguinolent diarrhœa—by a return of the menses suppressed during pregnancy—by subcutaneous abscesses—very rarely by pregnancy.

Of 55 cures, four were within the month—seven within two months—six within three months—seven within four months—five within the fifth month—nine within the sixth month—17 required more than six months—and two required two years and upwards.

Of the whole 92 cases, there were but six deaths. One six months after accouchement—one after a year—two after eighteen months—one after three years—one after five years. How is it, our author asks, that abdominal affections succeeding parturition are so often mortal, while cerebral affections succeeding the same state, are so little so? We cannot give a solution of this problem.

Dissection, M. Esquirol observes, has not disclosed any thing particular in the pathology of puerperal mania. He has sometimes found in these, as in other instances of insanity, albuminous exudations between the meninges; but he asserts, and we implicitly believe him, that he has not found either milk or lochia extravasated within the cranium. We need not inform our readers that nothing has ever been found in the brains of maniacs, that has not been far more frequently found in the brains of people who were not maniacs. Consequently, while we believe that insanity is a corporeal disease, we know not in what the physical lesion or alteration of structure (if indeed alteration of structure be necessarily involved in the complaint) precisely consists. If we find albuminous exudations, turgescence of vessels, or other marks of increased vascularity after death, in the brains of the insane—and if we find all these, times out of number, in the brains of other people who evinced no symptom of insanity, we certainly are not authorized so much by direct proofs as by analogy, to decide on the corporeal seat or cause of this dire affliction.

In respect to treatment, our author properly observes that puerperal and lactation insanity require the same moral and physical management as mental derangement from other causes. Separation from friends, hygiene, and moral means, are equally necessary, though not always so successful, by themselves, as in other instances of alienation of mind.

Venesection, M. Esquirol observes, should be employed with caution. Leeches to the pudendum or thigh, where there are symptoms of plethora, are more useful. Cupping-glasses, blisters, or sinapisms applied to the thighs, insides of the legs, or nape of the neck, with gently sudorific or laxative diluent drinks, ought, he thinks, to be preferred to more energetic means. Some cases of this disease succeeding parturition were cured by purgative clysters administered twice or thrice a day, the patient at the same time observing an abstemious regimen. Emetics, often repeated, have proved successful also in a few cases. Blisters which, at the beginning or during the period of irritation, did not prove serviceable, were found very useful at a more advanced period of the disease. The warm bath, especially the hip-bath, were admirable auxiliaries to other means.

CASES.

In conformity with the design of the *ANNUAIRE*, our author confines himself to those cases which occurred in Salpêtrière, though his private practice furnished him with cases of a more interesting nature than this public establishment.

Case 1. P. E. ætat. 39, has several relations insane. She was married at the age of 20, and has borne five children. When in the 4th month of pregnancy with her fifth child, she was frightened by a soldier running with a naked sword through the streets. From that time she had a presentiment that something would go wrong in labour, and that she would become insane. She was safely delivered on the 15th April, 1811. Three days afterward she had uterine hæmorrhage to an alarming extent, which continued for three or four days. Milk now came to the breasts, and she suckled her infant. On the 29th day she became delirious—exhibited extravagancies—and attempted suicide. She was obliged to be tied down to her bed for 15 days, during which she obstinately refused meat and drink. She was conducted to the hospital on the 25th July, being then melancholy, taciturn, the abdomen swelled. The child was removed from the breast. 27th July. She was furious to-day. Laxative drink—a blister to the nape of the neck—camphorated liniment to the breasts. A leucorrhœal discharge. 20th August. The blister is allowed to heal—she appears better—eats a little—speaks and walks about of her own accord. In the beginning of October she relapsed, and blisters were again applied, which were

followed by a slight febrile movement in the system. On the 20th November she was permitted to see her parents, and behaved well. On the 10th December she was restored to her family in perfect sanity."

Case II. This was a woman 51 years of age, who entered the hospital 30th June, 1812. She has a sister, who became insane after an accouchement, and remains deaf since that time. She herself married at 25 years of age. At 26 bore a child, and became insane, the disease continuing till her second pregnancy, when it ceased. The second parturition was not followed by any accident. After this she was eleven times confined, and each accouchement was succeeded by an alienation of a month or six weeks' continuance. At the age of 39 she experienced an attack of apoplexy, followed by hemiplegia. At 47, she had a fever, which was followed by mania that lasted five months. The menses now became irregular, accompanied by headaches; and they disappeared at 49, without accident. One year after this period, she experienced another attack of fever; and again the menses appeared, and flowed regularly for twelve months. At the age of 51, the death of her husband and other domestic afflictions reproduced mania, and now it was that the patient entered the Salpetriere. In about six months she was so far recovered as to be able to leave the hospital; but with her nerves so weak that she was liable to be frightened by very trifling causes. We shall quote but one more case out of the ten detailed by our author. It was a fatal one, and the dissection is appended.

Case III. "L *ætat*, 41 years, entered the hospital on the 28th November, 1811. At the age of 18 a fright suspended the catamenia, and she became melancholic for eighteen months, after which she resumed her usual health. She was confined in her 36th year, and, on the fourth day after delivery, being alarmed by the midwife quitting her, the milk was suppressed—she refused to eat—became furious—her tongue paralytic. After two months the menses reappeared—but the patient fell into profound melancholia, and entertained various chimerical and ridiculous notions. When she entered the hospital the malady had continued five years. Her countenance was pallid—features drawn—and she appeared to squint. She refused to eat or to lie down in bed for several days, Her head was shaved. On the 5th December, she experienced a stroke of apoplexy; but gradually recruited a little from its effects. In January, diarrhoea reduced her strength, and she sunk on the 20th of that month.

"*Dissection.* Skull remarkably thick and hard—vessels of the pia mater injected—brain soft—medullary substance injected—pia

mater in some places thickened—parietes of the lateral ventricles adherent in some places, with serosity in other parts, and their lining membrane injected, as well as the plexus choroides. Heart enlarged—liver granulated—mucous membrane of the intestines inflamed, and, in some places, sphacelated.”

In closing this short analysis we may observe that, although no particular therapeutical indications are broached in this paper, our readers will find it advantageous to bear in mind the information it contains. It is necessary, when we are called to a complaint, especially where it is not a very common one, to be acquainted with the probable issue of the disease—a species of knowledge which can only be acquired from comparisons on a large scale, such as M. Esquirol has here presented. We therefore recommend the paper to the particular attention of our junior brethren.

IV.

A Treatise on Diseases of the Nervous System. Part the First, Convulsive and Maniacal Affections. By A. C. PRICHARD, M. D. &c. Octavo, pp. 425. London, 1822.
[Second Analytical Article.]

MANIA.

Numerous have been the terms, taken almost entirely from the material world, which have been invented to designate that state of mind which is opposed to sanity. The Greeks called it mania, probably from their verb *mainomai*, *I rage*;—the Romans, *delirium*, from *de lira*, *out of the track*;—the French, *derangement*, *out of rank or order*;—it has also been termed insanity, madness, lunacy, and other appellations, some of the derivations of which are obvious, and others not worth investigating. The definitions of the disease have been still more numerous than the names thereof—some of them curious enough. Thus Mead conjectures—“that this disease consists entirely in the strength of the imagination;”—Cullen that “it consists in such false conceptions of the relations of things as lead to irrational emotions or actions;”—Ferriar conceives *false perception*, and consequently confusion of ideas, to be a leading phenomenon in insanity;—Haslam (in his first edition) characterized insanity as “an incorrect association of familiar ideas, independent of the prejudices of education, always accompanied with implicit belief, and generally with either violent or de-

pressing passions;" but in the second edition, he gives up the attempt at a definition at all. Halloran and Cox have also declined a definition of the disease. Esquirol has defined mania as "general, and chronic delirium, without fever, and with an excitation of the vital forces." Dr. Prichard, in the work before us, considers insanity as "chiefly distinguished by a general incoherence of thought—the ideas appear scarcely to follow any connected course—the attention passes in a hurried manner from one assemblage to another." But the fact is, that, as in most of the purely corporeal diseases, the various shades, the wide range, the mutable character of insanity will not be coerced into a pithy definition.

Dr. John Monro has given a curious and spirited sketch of the prelusive phenomena which often announce insanity. The person will exhibit what is called high spirits—shall take wine freely, though previously abstemious—from being reserved and modest, he shall talk boldly and obscenely—sit up late, sleep little, and start from bed early—every thing he says or does betraying violent agitation of mankind. Yet in the midst of all this hurry he will not misplace a word, or give the least reason for any one to think he *imagines* things to exist that really do not, or that they appear to him different from what they do to other people. Esquirol draws a still more striking picture of the onset of insanity. "What a change," says he, "has been effected in that man, who, only yesterday, was mersed in the most profound meditations, submitting to his calculations the laws of the universe, and balancing, in the vastness of his conceptions, the destinies of empires—whose wisdom was capable of opening new sources of prosperity to his country—whose genius was enriching the arts with the most exquisite chefs d'œuvre! All at once, mistaking every thing around him, and even himself, his mind is transformed to a chaos—his dispositions become perverted, and he wishes to upset and destroy all things. He appears at war with all the world—hates all which he before loved—and looks like the genius of evil amusing himself with the confusion, disorder, and destruction which he scatters around him! That woman, the very image of candour, virtue, and modesty—whose tongue uttered only the most mild expressions and generous sentiments—who was a dutiful daughter, an affectionate wife, a tender mother, loses the empire of reason. Her bashfulness is changed into audacity—her gentleness into ferocity—and from her lips comes nothing but execrations, blasphemy, or obscenity. She no longer regards the laws either of decency or humanity—she exposes herself naked to strangers—and, in her blind delirium, threatens her parents, strikes her husband, or stran-

gles her children, if recovery or death do not terminate the hallucination! To this storm, deplorable as it is, succeeds a calm ten thousand times more afflicting. The maniac falls into a state of careless apathy; he no longer evinces the contention of mind within him—utters no threats against those around him—all recollection of the past is obliterated—his intellectual faculties sink into *dementia*, the tomb of human reason—he becomes an object of pity or disgust to the by-standers, who scarcely recognise him as a *man*—he drags out the remainder of a *material* life, without desires or regrets—and sinks silently into the grave!***

There are instances, as we before stated, where insanity makes its approach gradually—a certain waywardness or singularity of character is observed for some time, perhaps for years, before the individual is set down by his friends as a maniac. But in general the disease breaks out suddenly—the manners of the patient become unusually impetuous—his conversation hurried—his mind full of projects, which he pursues with restless activity. He betrays the absolute derangement of his intellect by announcing some false and absurd impression, or by acting upon it. When his attempt is resisted, or when by accident he reveals the motive of it, his condition is rendered evident, and restraint becomes necessary.

At the first attack there is generally a disordered state of the whole, or a part of the system, as febrile excitement, disturbance of the sensorial functions, constipation of the bowels, want of sleep, impaired appetite, flushing of the face, redness of the eyes, contraction of the pupils, pain in the head, with throbbing of the arteries leading to it, sometimes giddiness and confusion of sight. Those who have had repeated attacks are occasionally sensible of the return of the malady. Some have described the attack as highly delightful. A patient of Dr. Willis's assured the doctor that he always expected, with impatience, the accession of the paroxysms, since he enjoyed, during their presence, a high degree of pleasure. They lasted ten or twelve hours, during which every thing appeared easy to him. His memory acquired, all at once, a singular degree of perfection—long passages of Latin authors occurred to his mind, and he could write in verse as easy as in prose. He found himself cunning, malicious, and fertile in all kinds of expedients. Some have described a sense of working in the head, and also in the intestines, like a fermentation. Others have observed that they

* Esquirol on Mania; Dict. des Sciences Medicales, Vol. xxx. p. 437.

did not seem to possess their natural feelings—and all agree that, they become confused, from the sudden and rapid intrusion of unconnected thoughts.

Dr. Haslam remarks, that on the approach of mania, the patients become uneasy and incapable of confining their attention, neglect their employment, get little sleep, become loquacious and disposed to harangue, decide promptly and positively upon every subject—then they begin to divest themselves of all restraint, declare freely their opinions of their acquaintances, express with fervency and extravagance their friendships and enmities, become impatient of contradiction, and scorn reproof. Many have all the appearances of inebriation, to which the approach of mania often bears a striking similitude. At length, suspicions creep upon the mind—they seem aware of plots that were never contrived, and detect motives that were never entertained. Last of all, the succession of ideas becomes too rapid for examination—the mind becomes crowded with thoughts, and confusion ensues.

Those under the influence of the depressing passions, exhibit a different train of symptoms. The countenance wears a gloomy and anxious aspect—they are averse from conversation—retire from the company of their former associates—seclude themselves in obscure places, or lie in bed the greater part of the day. They next become fearful, and conceive a thousand fancies—often allude to some immoral act which they have committed, or imagine themselves guilty of some crime which they have never perpetrated. Frequently they become desperate, and attempt, by suicide, to free themselves from an existence which has become an afflicting and hateful incumbrance.

The mental characteristics of this disorder involve all those aberrations from sound intellect which render man a useless, and often a dangerous member of society. A degree of cunning, not always to be divined even by those most acquainted with the insane, constitutes a leading feature in mental derangement. Whether they have meditated destruction to themselves, or mischief to others, the accomplishment of the deed is often the only notice of the intention. Dr. Prichard, in showing the defective definitions which have been given of insanity, combats the idea of Cullen, that false perceptions or recollections, produce *disproportionate emotions* in the insane.

“The emotions of a lunatic are indeed often vehement, and are forcibly expressed; but it may very well be doubted whether they are out of just proportion to the mental impressions from which they arise, or are in reality more vivid than those which many sane persons, of susceptible temperament, would experience, were they actually

placed in the precise circumstances with which the imagination of the lunatic environs him. A madman will often fancy himself a king, and then he will utter expressions of violent indignation if he is not treated with all the respect and obedience to which his elevated station entitles him: but I believe there is many an autocrat who would be just as grievously affronted, if his royal honours were treated with as much freedom and contempt as the poor lunatic is fated to experience. Give the latter the obeisance which he fancies to be his due, and he will be infinitely gracious and condescending." P. 119.

Dr. Prichard has come to the conclusion that, in madness, it is not the *reasoning or judging* faculty which is involved—nor does he think there is any primary derangement of the emotions or passions, which, he believes, are always in proportion to the impressions from which they take their rise. Neither can erroneous or impaired *sensation* be the cause of insanity, for in such cases there is no correspondent error of perception, the false impression on the organ of sense being immediately corrected by the mind. Nor can madness, our author observes, be said to consist chiefly and essentially in error or defect of *perception*—since lunatics in general have very acute perceptions, and distinguish very clearly and correctly the persons and objects that surround them. If then we exclude from the idea of insanity, the intellectual phenomena of sensation, perception, and the reasoning or judging faculty, what are we to regard as the essential circumstances of the disease?

"It will be found, if I am not mistaken, that the faculties of the mind, to which we must direct our chief attention in investigating the nature of madness, are memory and imagination, or reverie; and in fact, that the habit which characterizes a lunatic is that of confounding the results of these two mental operations, and mistaking the ideas of reverie for the impressions of memory and reflection." 123.

We cannot detail the arguments which our author brings forward in support of this position; but he concludes, that the reveries of the madman—"even the most idle and fantastical of them, produce upon his mind the same effect, and leave exactly the same impression, as in a sane person takes place through the medium of actual perception, or of the assemblage and combination of the ideas of perception, by the active exertion of memory and reflection. To sum up this account in a few words, the character of madness seems to consist in the circumstance that *the impressions of reverie are so modified by the disease as to be no longer distinguishable from those of attentive and active reflection.*"

Those forms of madness wherein the patient fancies that he perceives things or persons present, when they have no exist-

ence, appear to militate against our author's belief, that there is no *false perception*. But he attempts to explain the difficulty, by supposing that, when the maniacal hallucination becomes exalted to a very intense degree, it represents unreal objects as actually present—that is, certain phantasms, the creations of reverie or imagination, are presented to the mind in such vivid colours, as to produce a similar effect to that of actual perceptions—the patient, in other respects, making no mistake with regard to place, time, or surrounding objects. Thus, Dr. P. has seen a lunatic under this form of the disease, walk up and down a street, sufficiently alive to external objects to avoid falling in the way of horses and carriages, or running against foot passengers, but yet, so intent upon the scene presented by his reverie, as to be busily employed in issuing commands to troops of soldiers, of which he imagined himself to be the general, and directing them to enfilade and perform a variety of evolutions. All this he performed with a voice and gesture which were perfectly natural, and consistent with reality. To this class of madness belongs, Dr. P. thinks, what have been termed *idolomania*, or *dæmonomania*, in which the lunatic fancies that he sees and holds conversation with imaginary beings; the conception of the mind being so vivid and intense as to withdraw the attention from all surrounding objects, but without actual inability to form a correct conception, if once the attention be diverted from the subject of hallucination.

After all, it must be confessed, that we know not by what physical cause those affections of the mind are produced which are termed impressions of memory—nor do we know in what respect these operations differ from those peculiar to reverie—we are not, therefore, prepared to explain how the former can be converted into the latter. But let us come to more tangible points.

There are certain bodily appearances which are said to indicate insanity, and to be distinguishable by those conversant with the insane. These are, a peculiar cast of countenance not to be represented by graphic description—a quick, oftentimes protruded and glistening eye—coldness of the hands and feet—capability of sustaining cold with comparative impunity (but this is denied by Pinel and some others)—obstinate torpor of the bowels—*innitius aurium*, and other aural affections—relaxation of the scalp, (observed by Dr. Haslam,) especially after a raving paroxysm of some continuance.

Pathology of the Brain in Mania. Dr. Prichard observes that, most of the remarks which he offered on the subject of

epilepsy,* are applicable to mania. It has been a common complaint, that little has been found in the brains of maniacs to elucidate the disease—physicians, he thinks, having looked too much for some peculiar phenomenon distinctive of this particular malady; whereas, if he be right in the observations which he has made on nervous disorders, “all that can be expected to be found, are the common vestiges of increased vascularfulness, whether inflammatory or congestive.” To the effects of increased vascular action, he supposes we may refer all the phenomena usually found in the brains of maniacs, without excepting that preternatural hardness, described by authors, or even the bony depositions so frequently seen about the dura mater. In confirmation of this statement, Dr. Prichard quotes a passage from Pinel, in which that experienced physician remarks, that “he had attended at thirty-six dissections in the hospital Bicêtre, and he never met with any other appearances within the cavity of the cranium than are observable on opening the bodies of persons who have died of *apoplexy, epilepsy, nervous fevers, and convulsions*.” As a counterbalance to this, however, we may refer our readers to M. Esquirol’s writings, and particularly to page 257 of the first volume of this series of the Journal, in which it will be seen that—“in numerous and accurate dissections of the insane, no alteration whatever from the healthy structure could be discovered.”† Esquirol, indeed, admits that the disease is always occasioned by some corporeal lesion, whether of structure or function; but, he thinks, that this lesion is not exclusively in the brain, the vital powers or intellectual operations of which, become affected secondarily in many cases.

Chiarugi in Italy, Greding in Germany, and Haslam and others in this country, have detected diseases of the brain or its membranes in the insane; but there may exist many alterations, perhaps even of structure, in so delicate an organ as the brain, too minute for the eye to observe, and not to be demonstrated by the scalpel. The membranes of the brain are as frequently found altered, as the cerebral substance. The tunica arachnoidea becomes thickened, and rendered more or less opaque; the pia mater more or less inflamed, turgid with blood, and not unfrequently with an extravasated blotch on this tunic. Effusion of a watery fluid between the membranes is a very common occurrence, as well as into the ventricles.

* See page 129 *et seq.* of our last number.

† Med. Chir. Rev. (Analytical Series) Vol. I. p. 258.

Etiology. Dr. Prichard prefaces the subject of *uterine mania* with some judicious observations on the pathology of nervous affections in general, which are connected with the state of the uterine functions. He does not seem to adopt the usual division of maniacal causes, into moral and physical. He probably looks upon the *physical* causes as the only efficient ones, and without which, the disease would not exist. We believe, indeed, that moral causes only act in producing those physical disorders that, in turn, react upon the mind.

Esquirol remarks that, of all the causes of mania, in females, irregularities of the menstrual secretion are the most common. The next is the state of lactation, whether the milk fails to come to the breasts after parturition, or becomes suppressed in the course of suckling, or the woman neglects the proper management in weaning. Insolation, or exposure to great heat, is set down by M. Esquirol as a frequent physical cause of insanity. Repressed eruptive diseases, that have been long established, occasionally excite the maniacal state, particularly in the period between 35 and 45 years of age. It is in such cases, that issues or other drains from the system, are so useful. Epilepsy is a frequent cause of the disease. Of 400 epileptic patients in the Salpetriere, fifty and upwards are maniacs—and those of the most violent kind; but the paroxysms are generally of short duration—sometimes only a few hours—sometimes three, four, or eight days. These paroxysms of mania rarely *precede*, but generally *succeed*, the epileptic attack.

Among the physical causes of insanity we ought to have alluded to *hereditary* disposition, which performs so prominent a part in the etiology of mania. M. Esquirol justly regards the moral, as far more numerous than the physical, causes of insanity—especially in the female sex. These moral causes are also much more frequently in action among the higher, than among the lower orders of society. In the former class, the intellectual faculties are more exercised and developed—the passions more excited, and more energetic. More dependent on the caprices of fortune and of men, the rich are far more exposed to the chagrins resulting from wounded self-love, and vicissitudes of circumstance, than the poor. In the upper classes of the female sex, the passion of love is continually interrupted and crossed in a thousand different ways, and thus becomes a prolific source of insanity. Esquirol remarks, and we think the remark just, that it is rare to see either moral or physical causes *singly* produce insanity—they are generally combined, or one is the effect of the other. Thus, a fright will suppress the menses, and this suppression will cause madness, which will disappear when the catamenia are restored.

But to return to Dr. Prichard's work, sect. 5 of chap. 5. Maniacal affections, he observes, are connected in a variety of modes with the uterine functions. Sudden suppression of the catamenia from cold, over-excitement, or any powerful mental emotion which disturbs the system, is occasionally the prelude to a maniacal attack, which is generally of short duration, subsiding when the catamenia are restored. Sometimes, however, the effect will remain after the cause is removed. We know that many, indeed we might say, *most* women display greater or less degrees of excitement at the periods of menstruation, even when these are regular. In some, these amount only to a depression of spirits or irritability of temper—in others, to hysterical symptoms—in others again, maniacal impressions take hold of the mind. When therefore we find aberrations of intellect conjoined with great irregularity of menstruation in young women, we may, with much probability conclude, the latter to be the cause of the former. In respect to the nature and treatment of uterine mania, our author supposes it will be readily allowed that the theory which applies to uterine epilepsy will apply here.* In a large majority of the cases of uterine epilepsy and uterine mania, the women were of strongly marked sanguine temperaments, an additional fact in favour of the analogy between the two classes of disease. But independently of all analogy, the phenomena of the disease and the effects of remedies sufficiently point out the course to be pursued in uterine mania.

"One observation which I have made respecting the treatment of these disorders is the following. In uterine mania, more may be expected from the effect of stimulating emmenagogues than in analogous instances of epilepsy; and frequent, and copious bleedings are not, in general, so necessary or so safe in the former disease as in the latter." 201.

Dr. P. considers the tincture of melampodium and the oil of turpentine to be the most efficacious emmenagogues in cases of uterine mania—the former in doses of thirty to sixty drops thrice a day. Our author has so often prescribed this medicine in amenorrhœa, and has so frequently seen the catamenial flow ensue, that he is convinced it possesses some specific power in promoting this discharge.

"But the oil of turpentine is generally more efficacious. This medicine is a most powerful and diffusible stimulant; it acts on several of the secretions, particularly on that of the kidney, and often occasions even hæmaturia. There is no other substance more likely, from its known properties, to exert an influence on the secre-

* See uterine epilepsy, p. 182 *et seq.* of last number.

tive action of the uterus. With this view I have prescribed it in the form of an emulsion, each dose containing from half a dram to a dram of the rectified oil, to be taken three times in a day. Sometimes I have preferred to give two drams of the oil at night, or a double quantity during the day, together with some brisk purgative. Clysters of *ol. ricini* and *ol. terebinth.* of each an ounce, are often successful in bringing the same result. The use of the warm bath should be ordered at the same time." 203.

Of other stimulants, as the balsams and the lytta, our author has not had sufficient experience. Chalybeates, he has seldom or never prescribed, from a conviction of their impropriety in such cases. In other respects the treatment of uterine mania must be conducted on the same principles as uterine epilepsy.* Four cases are related in illustration of maniacal disease connected with dysmenorrhœa, or with suppression of the catamenia. Of these we shall notice one or two instances.

Case I. Rebecca James, admitted June 5th, 1820, of sanguine temperament, and aged 30 years. She had been in hospital for the same complaint about nine months before. She talks incessantly—is sometimes very boisterous—extremely irritable—subject to sudden flushings of the face. When the excitement is over she remains sullen, or cries and laughs alternately. Bowels are torpid—pulse rapid—catamenia irregular, being sometimes wanting, and always scanty when they do appear. Twenty-four ounces of blood from the back of the neck by cupping—a blister—an emetic—a purgative. Next day, there being little alteration, she was bled from the arm, and had powders of antimony, opium, and jalap. Ten days after entering the hospital, the cold shower bath was ordered. 21st July, very noisy—"sent to the pens." 27th, in a state of collapse—cries and laughs, or is sullen—"pil. confect. hyd. cum aloë." Aug. 19th, convalescent, and soon afterward discharged apparently well. She returned, as an out patient, in March 1821, alarmed at the idea of a relapse, having some premonitory symptoms, and a delay of the catamenia. She was bled—took the turpentine emulsion, and tincture of black helebore. The catamenia soon followed. She was completely relieved. A relapse of mania occurred in June 1821, but was removed by evacuants.

Case II. The history of this case we shall give in our author's own words.

* See page 134 *et seq.* of No. IX.

"Ann Marsh, aged 35, admitted May 25, 1816. An unmarried woman, of middle stature, full robust habit, short neck; face generally flushed; sanguine complexion, viz. light blue eyes, light brown hair. She complains of being extremely nervous: says she has been subject to giddiness from her infancy. She has been for some years a cook, and fancies that her present complaints were brought on by standing near the fire.

"Her complaint is not hereditary; it has been gradually coming on for some months. She would frequently start from bed and walk about the room. But it is within the last nine days that the disorder has assumed its present form.

"At present her countenance is extremely wild; the pupils of her eyes are contracted, her bowels costive, and her breath offensive. She is very unmanageable, and at times utters a loud, dismal shriek, which is always the forerunner of a violent struggle; she kicks and tears every thing near her until she gets into a profuse perspiration.

"*State of the natural functions.*—Bowels costive; breath offensive; appetite keen; catamenia irregular; whenever they are in the least checked, (that is, when they fail to appear at the due time,) the disorder flies to the head: latterly, if any thing vexes her, her head is affected. She says, that if she can cry well her head will not be so much distressed. When at the best, she talks incessantly. She is very irritable, and cannot bear stimuli of any kind." 198.

The head was shaved and blistered—the blister to be kept open—purged freely—saline antimonials every four hours. 5th June, the febrile symptoms had abated. The medicines continued. 12th June, complained of excruciating pain in the head. Twenty ounces of blood from the temporal artery. From this time she gradually recovered. In March, 1819, she had a relapse; being suddenly seized with darting pain across the forehead—flushed countenance—suffused eyes—hot skin—quick pulse, &c. Head shaved—sixteen ounces of blood from the temporal artery—cathartic draught—low diet. By these means she was restored to health of body and mind. In August following she had another attack, and was relieved by the same means. Since that time she has continued well, with the exception of some irritability of temper, and a propensity to talkativeness.

Case III. This was the mother of fifteen children. During pregnancy of her last child, she complained of what she termed rheumatism in the head, and was never regular in her catamenial periods after parturition. They have appeared at long intervals, and then scanty. She has been in a state of melancholy, and disposed to suicide. Mercurial alteratives and bitters—return of catamenia—much improvement in mind and body—by continuation of the medicines she recovered.

The 4th case related by Dr. Prichard was one of puerperal mania, preceded, however, by threatenings of mental derangement. Evacuations by bleeding and purging gradually restored the patient to sanity of mind and body, though she was still subject to returns of excitement at the catamenial terms. Some months after recovery she became suddenly frantic, in consequence of a fright, and fell into a state of raving and incoherent insanity. In this condition she refused all sustenance, passed her evacuations involuntarily, and sunk comatose. Permission was not obtained to open the body.

Dr. Prichard passes over the subject of puerperal mania with very little notice; and only gives two or three cases in elucidation. With Dr. Ferriar, he is inclined to consider puerperal mania as a case of conversion. "During gestation," says Dr. Ferriar, "and after delivery, when the milk begins to flow, the balance of the circulation is so greatly disturbed as to be liable to much disorder from the application of any exciting cause. If, therefore, cold, affecting the head, violent noises, want of sleep, or uneasy thoughts, distress a puerperal patient, before the determination of blood to the breasts is regularly made, the impetus may be readily converted to the head, and produce either hysteria or insanity, according to its force, and the nature of the occasional cause."*

We refer our readers for further particulars to M. Esquirol's paper on puerperal mania in this volume.

The 8th Section of this chapter of Dr. Prichard's work, contains some observations on maniacal affections as they occur about the cessation of the menses. At this period, we all know, the female constitution is particularly obnoxious to irregular distributions of blood, and the morbid effects resulting thence. Every old woman, indeed, is familiar with this part of pathology, and may perhaps give as good an *explanation* of the phenomenon as any physiologist. The predisposition to insanity, at this period of life, (for our author thinks that no individual can become the victim of insanity, unless he has a constitutional tendency to it, "derived from his forefathers or springing up anew in his original conformation") is greatly promoted by a sedentary life, indulgence in stimulating regimen, and inattention to the bowels. And as extremes approximate in their effects, a similar consequence often results from an opposite mode of life. Women of the lower orders, who labour hard and

* Med. Hist and Reflect. vol. ii.

frequently beyond their strength, especially in hot weather, (circumstances which stimulate the vascular system,) are liable to this disorder—and contemplative habits, superstitious impressions, the effects of false representations of religion—all mental habits which render the impressions of reverie vivid, and withdraw the attention from objects of sensation and perception, tend to foster this disposition; yet all these might exist for many years, without producing a morbid effect, if the habitual resource, by which the constitution had relieved itself of a burthensome plethora, or of accumulating irritability, had not ceased to avail itself. We shall here abstract a case or two in illustration.

Case IV. Sarah A.—, ætat. 58. She is a fat short woman, of melancholic complexion, and strongly marked features. Her brother and sister had died maniacal, the former having committed suicide.

“She has, for several years, led a very solitary inactive life, kept a huckster’s shop; used to read a great deal, and spend all her time alone. It seems that she was in the habit of indulging herself in eating and drinking.

“Pulse full. Bowels regular at the present time. Appetite good; rather voracious. She appears always cheerful, and struts about the ward.

“Pil. Cath. Mist. Cath. Low diet.

“Oct. 22. No material alteration. Seems to have been relieved by the shower bath, which she has used. Sleeps little; is garrulous. Pulse natural. Begs for a full diet.” 210.

Full diet was accordingly allowed, with a cathartic twice a week, and the cold affusion. But the full diet aggravated the complaint, and rendered her more noisy and troublesome. No medicine indeed produced any material alteration, but she was always worse after repletion.

After nearly two years’ continuance of the disease, fever came on after taking a full meal of broth. She was bled and purged, and she seemed recovering. She was allowed porter and other stimulants, and four days afterward expired.

Dissection. Calvaria heavy—vessels of the dura mater turgid—strong adhesions between the latter membrane and skull—a large piece of bony substance at the inner margin of the falx, near its origin. Vessels of the pia mater turgid—that membrane thickened and opaque in patches—effusion of serous fluid beneath the pia mater—cerebral substance firm and hard—vessels of the medullary texture minutely

injected—lateral ventricles distended with fluid—plexus chorooides pale—vessels of the cerebellum loaded with blood.

What is usually termed *religious* madness, we have no doubt is generally a *physical* derangement acting on a mind disposed to religious contemplations, but perverting, of course, the emotions that would naturally rise in the mind of a sane and religious person. A case is related by Dr. Prichard at page 213 of his work, which strengthens this opinion.

Case V. Anne Howell, aged 53, of dark complexion, melancholic temperament, "an exquisite example of what is termed religious madness," lies in bed—has the most gloomy and dejected aspect—moans and complains in a tone of unvarying despair—sometimes utters the most frightful shrieks and yells, so as to render confinement in the solitary apartment necessary—gives, on interrogation, the most pitiable account of her miseries, which she solemnly avers to be realities, and not the chimeras of the imagination.

"She believes that she is the object of the eternal wrath of an offended God, on account of her sins. At night she looks out of the window, and sees the gulf of hell yawning to receive her, and myriads of devils in the midst of fire and brimstone. Being told that God is merciful to those who repent of their sins, she replies, that his clemency extends only to those who have a broken and contrite spirit, and that her heart is hardened and dried up within her. She is as fully persuaded that she is eternally damned as she is of her existence." 213.

On investigation it was found that the disease had made its first attack about the period when the catamenia cease; in consequence, it appeared, of hard labour, exposure, and over-exertion, while working in the open air carrying bark in a tanyard. After suddenly stooping to raise a heavy burden, she cried out that she was seized with a severe pain in the back of her head and neck. When taken home and confined to her bed, her senses were confused, and she complained of undefined feelings of distress. Her apprehensions were directed at first to the state of her body; but being desired to pray and read the bible, on opening it she immediately felt that the wrath of God was denounced against her.

Her health was much out of order, particularly the digestive organs—and pulse rather full. When first received into hospital, she underwent topical depletion and purging, in consequence of which, she was so much relieved that her husband had her removed home. She was readmitted in

November, 1819, but from this time all remedial measures failed to afford any substantial relief. It was remarkable, however, that, at one time, dark-coloured patches appeared on her thighs, and subsequently on different parts of her body—*she then became sane in mind*. She is now (March, 1821) much emaciated, with a strong pulsation in the lower part of the abdomen.

The sixth chapter is on the subject of metastasis to the brain, producing mania and epilepsy—the former disease being omitted in our first analytical article.* We touched on the subject of metastasis, however, in such a manner as will render it unnecessary to say much on that point in the present case. It may be remarked that, if mania be produced by metastasis to the head, it is also sometimes cured by the supervention of another diseased action in a part, or even in the whole of the system. Dr. Prichard relates three cases of mania cured by attacks of contagious fever during the late epidemics. In St. Peter's Hospital the lunatics are placed in the same wards with patients labouring under contagious fever—in consequence of which, our author had frequent opportunities of witnessing the effects of fever communicated to maniacs. The principles of treatment in these metastatic cases are detailed in our first analysis, page 138, *et seq.*

ENTERIC MANIA.

In the first volume of our *quarterly* series, No. 2, for October, 1818, we gave an account of Dr. Edward Percival's excellent report on the connexion between maniacal affections and disordered states of the abdominal viscera. Dr. Prichard characterizes Dr. Percival's paper as a truly graphical description of enteric mania. Dr. Prichard, however, differs in one point from Dr. Percival—he does not consider a depraved state of the intestinal canal as so very general a feature in maniacal affections as Dr. Percival seems to view it. Still Dr. Prichard admits that “this is one of the most frequent forms under which maniacal disorders present themselves to our notice.” There is nothing peculiar in the mental phenomena occurring in enteric mania. It most frequently takes place between the periods of 25 and 40 years of age—is often periodical—the first attack being generally after irregularities in the functions of the stomach and bowels. Our author has notes of many cases where the disease occurred immediately after a long voyage, during which the patient had been fed upon salt provisions, and suffered his

* See page 139 of this volume.

bowels to become constipated. Irregular diet and the habitual use of ardent spirits are among the most frequent of the previous circumstances.

"Great anxiety of mind, unusual exertions in business, and especially an effort to grasp at a greater variety of objects, or to engage in a greater diversity of pursuits than the mental powers of the individual qualify him for, will often be found to precede the attacks of this disease; the patient having neglected the state of the natural functions, which an unusual excitement of the nervous system had contributed to throw into disorder. A trifling degree of incoherence, a hurry and confusion of thought; sometimes an absurd degree of energy, manifested in the pursuit of some trifling object, is the first symptom which betrays the actual condition of the patient. In an attempt to reason with him, or resist him, he commonly becomes violent: he has often very early a lurking suspicion of his deranged state: at least this would appear to be the case from the frequent and positive assurances he makes to the contrary, even at times when no suspicion has been hinted."* 247.

The diseased state of the alimentary canal is generally very strongly marked—the gastric, biliary, and intestinal secretions being depraved. The phenomena would lead to the supposition that chronic inflammatory action was seated in the mucous membrane of great part of the alimentary canal.† In this form of the disease constipation seems to be, as it were, the natural character of the complaint. On inquiry we will be told that the patient has passed six or seven days without a motion—and, when cathartics are administered, a large quantity of excrements is discharged, of an unnatural appearance, the fæces being sometimes dark as coffee-grounds, or of a dirty green colour, and very fetid. A long-continued torpor occasionally gives place to a diarrhœa, which usually augments the evil—the abdomen becoming more distended than before—flatulence being added to the load of solid contents, which are only partially discharged. The evacuations are generally thin and watery; or contain mucus mixed with vitiated bile, and recent aliment undigested—sharp and transient pains are experienced in various parts of the abdomen—a quantity of wind is discharged, or rattles

* "I have sometimes observed a maniac, after saying something extremely absurd, (although I have taken care that nothing in my countenance or manner of conversing betrayed my impression of his insanity,) as if suddenly struck himself with the apparent incongruity of what he had been saying, break off and protest that he was in his right senses."

† We cannot agree with our author on this point. Constipation of the bowels is a phenomenon quite inconsistent with inflammation of the mucous membrane.

about in the bowels—at length dysentery supervenes, and often carries off the patient, or reduces him to a state of extreme emaciation.

“The mouth and fauces, if examined, generally present a diseased aspect. The fauces and velum pendulum are red, the vessels injected, covered in patches with mucus. The tongue is often red; sometimes red with white streaks: more generally, especially when there is diarrhœa, covered partially with a brownish fur. The mouth is viscid, and the patient generally spits out a frothy slime in all directions. There is an ardent thirst, and a peculiar fœtor of the breath, which indeed extends to the whole person, and would induce a suspicion that the secretions are loaded with absorbed excrementitious matter.” 249.

The appetite is irregular—sometimes there is an aversion to all food, so that the patient cannot be induced to take sufficient nourishment for the support of life—in other instances, there is a voracious desire for food, which is greedily devoured, without selection.

The skin is clammy and cold, with often a remarkable coldness of the extremities, resulting from want of energy in the extreme vessels. In some protracted cases there are papular or scaly eruptions—or furunculi appear in various parts of the body, which are disposed to slough, especially in debilitated subjects.

The complexion is often flushed—the eyes wild, glossy, and lachrymal—the tunica conjunctiva frequently injected—the eye intolerant of light—the pupils more or less contracted—the urine is scanty and high-coloured, containing matter that should pass by the alimentary canal. The pulse is quick and irritable, the carotids beating with more than proportional force. The patient is sleepless, often for many nights in succession—irritable and tremulous.

The progress of this form of insanity is various. Sometimes a diarrhœa affords relief, the disease either continuing in a mitigated form, or recovery takes place—in other instances, the diarrhœa carries off the patient.

“In the more protracted cases, the diseased state of the mucous membrane of the intestinal canal gives rise to glandular obstructions in the mesentery: at least it is a fact that disorganizations of this description are often discovered after death. Hectic fever, with great emaciation, follows, and the patient sinks under a general cachexia, or effusion takes place into the abdomen, and he dies dropsical.” P. 250.

Such is a sketch of enteric mania, on the *ratio symptomatum* of which, our author has not much to say. That the affection of the brain producing mania, is connected with the

disordered state of the intestinal canal, as an effect with its cause, Dr. Prichard infers from the analogy of other nervous diseases, which are found to be dependent on morbid states of the enteric functions—and from this important fact that, in the particular instance of mania, agents which produce a change in the intestinal canal relieve, or aggravate, or modify the character of the cerebral disorder.

Treatment of Enteric Mania. The same general principles laid down for the treatment of enteric epilepsy will apply here*—namely, a restoration of healthy function in the digestive organs, while, as in epilepsy, the secondary or sympathetic disorder, must be controlled if possible.

Although the abstraction of blood has comparatively a small place in the treatment of enteric mania, yet, it cannot, without impunity, be omitted under certain circumstances.

“When the disease commences with symptoms approaching to phrenitis, with raving delirium, a rapid bounding pulse, particularly in the carotids, a flushed countenance, reddened eyes, heated scalp, dry tongue, intense thirst, it would be wrong to omit bleeding either from the arm or jugular vein. It is much safer to attempt to relieve the sanguiferous system in this method than by emetics; to which recourse has often been made, as if they were the specific remedy for violent delirium. The quantity of blood taken should be moderate; it should not often exceed sixteen or eighteen ounces at one operation: in a great many instances the loss of ten, twelve, or fourteen will be sufficient to effect the purpose, especially when combined with local applications, calculated to assist in bringing about the same result.” 301.

The auxiliary means are obvious enough, as shaving the head—cold lotions—leeches or cupping—blisters. Some discrimination ought to be made when these last are employed. Dr. Prichard properly observes that, when the head is hot, and the face flushed, blisters on the scalp itself are injurious; it is when the external parts of the head are cold, while symptoms exist which indicate a determination to the deep-seated encephalic vessels, that blisters may be beneficial. “General bleeding will scarcely be required in two cases out of ten of enteric mania.” The treatment directed towards the alimentary canal must be the same as that described for epilepsy. Emetics may be useful, where there is no strongly marked fulness and increased action in the carotids and temporals, or after relief of this symptom has been obtained by bleeding. In many instances, Dr. P. observes,

* See page 143, et seq. of this volume

a dose of calomel, with one grain of tartarized antimony, (as observed in page 144 of this volume,) will be sufficient. Sometimes, however, eight grains of the latter medicine will hardly be capable of overcoming the torpor of the stomach.

"The bowels ought to be completely purged by powerful cathartic doses, given as frequently as the strength of the patient will admit, until the full effect takes place. If they are slow in their operation, they should be assisted by purgative enemata, containing Oil of Turpentine with Castor Oil. We must not be withheld from the use of purgatives by an assurance that the bowels have been open or even loose, for some time: even in this case they are often found to contain a great mass of feculent matter." 303.

The disorder of this part of the system is of the same description as enteric epilepsy, and requires the same treatment. There is no medicine, Dr. Prichard thinks, upon the whole, so valuable in these affections, as the rectified oil of turpentine. "It possesses a particular property of allaying irritation in the nervous system, at the same time that it restores a healthy action in the intestinal canal." When there is suspicion of worms, then this medicine is particularly indicated. The form of exhibition is an emulsion, as stated in our former article, from half a drachm to a drachm, (of the oil,) being taken three or four times in the day. If the medicine be given in large doses it will be likely to occasion hæmaturia—even in smaller quantities, it sometimes give rise to nausea and vertigo. The emulsion is less offensive to the stomach, than the oil in any other form. The diet should not be too low in enteric mania, as the disease is generally accompanied by, or gives rise to, great emaciation and debility. After the removal of the intestinal disorder, country air and exercise, with the use of the shower bath, will tend greatly to restore the health. It must be observed, however, that in some cases, the mania will continue after the digestive organs are completely healthy in function. It is evident, that the symptomatic disorder of the brain has then become idiopathic—that is, a lesion of structure. We shall now present some account of a few of the cases related by Dr. Prichard.

Case. James Nott, a strong muscular man, aged 46, was admitted with mania on the 13th November, 1820, in a frantic state—his tongue furred—mouth and fauces beset with frothy mucus—pupils contracted—face flushed—eyes wild and glistening—pulse slow and full—pain on pressure in the region of the liver. He could give no account of himself, but his wife had observed that he was not well for some days before the attack, being costive, disinclined for food, restless, with headach, giddiness, and sleeplessness. After

these symptoms had continued four or five days, he suddenly jumped out of bed one night, began to talk incoherently, and break the tables and chairs. This was about a fortnight before his admission. He had been in the habit of drinking freely formerly, but had led a sober life for the last two years. When his bowels were opened after the constipation, his wife remarked that the evacuations were very offensive, and looked like rotten flesh.

At the time of admission his face was flushed—his eyes wild and glistening—he was talking with much energy—asserting himself to be a man of great fortune—and declaring he was not mad. He was bled from the arm and the temporal artery—head shaved—leeches to the head and a blister to the neck—was purged—but all without diminishing the violence of the maniacal excitement. Three grains of emetic tartar produced no effect on his stomach—and a repetition of six grains only made him vomit occasionally. He was constantly restless, and obliged to be kept in a straight waistcoat. For five or six days after admission he took little or no food—his sleep was disturbed with raving fits—and he passed his evacuations involuntarily in bed. After the tenth day, some stimulants and opiates were tried, but soon discontinued. From that time he gradually sunk in a state of stupor, and expired on the 6th December, about five weeks from the commencement of the attack. During the whole of his illness there was a peculiar and strongly fetid smell emanating from him, and which was very perceptible in the body previously to dissection.

Post-Mortem Appearances.

“*Abdomen.*—The intestines were distended with flatus, and also contained a considerable quantity of fæces: they were in many places, more vascular than usual. There was no perceptible mark of inflammation in the external surface of the stomach; but, when slit open, its inner membrane was found to be considerably reddened: this appearance was more strongly marked about the cardiac portion: the inner coat of the duodenum was also more vascular than natural; and this intestine, as well as the stomach, contained much tenacious mucus, which adhered to the coats, and was not easily wiped off. The remainder of the canal was not examined. The liver was firm, but appeared healthy: the gall bladder contracted, and contained but little bile.

“In the thorax the right lung firmly adhered to the diaphragm, and the same part contained abscesses; one of which had formed an opening into the right thoracic cavity. This cavity was quite full of purulent matter, mixed with serum. The lung on the same side was quite collapsed, and the pleura costalis, and pleura pulmonalis.

coated with a layer of coagulable lymph. The left lung adhered extensively to the side, but was otherwise healthy.

“*Head.*—Much fluid blood flowed when the longitudinal sinus was cut: the arachnoid membrane was much thickened, and almost opaque: there was effused fluid under it. The brain was firm: all the ventricles were full of serum. There was also serum at the basis of the brain.” 308.

There is something not quite satisfactory in the report of this dissection. We do not understand how the right lung could be *firmly adherent* to the diaphragm, and “*quite collapsed*” at the same time. Be that as it may, the case affords a striking example of the extent to which disorganization will sometimes go in the chest without corresponding lesion in the function of respiration. We hear of no cough, no difficulty of breathing in this patient, and yet abscesses existed in the lungs, and one side of the chest was full of sero-purulent matter. It also offers an illustration of a remarkable pathological fact—namely, how a severe affection of the brain or its coverings will mask even a destructive process going forward in another part of the system. As far as the head was concerned, we consider the case as exhibiting an excellent specimen of arachnitis.

The second case related in this section by Dr. Prichard, is one of enteric mania pretty strongly marked. It was a youth of 17 years of age, who had three temporary attacks of insanity, and each in the autumnal season of the year. The last attack was in October, 1820, when he started from bed one morning (like thousands of others at that time, who were little less insane than himself) to go and meet the Queen: During this paroxysm he presented the following phenomena, viz. distension of the abdomen—pains in the abdomen and chest—voracious appetite—titillation of the nostrils—restlessness at night—discharge of worms in his motions. He was bled—had calomel and other purges, and then took the oil of turpentine in half-drachm doses thrice a day. This purged him violently, the stools containing a considerable quantity of blood. The tumour of the abdomen subsided, and he lost all symptoms of mania. Still he complained of pains in the head, and the carotids pulsated too strongly. He was cupped and blistered. He was discharged cured, and has had no relapse.

Passing over the third case, which at one time was hopeless, but was apparently saved by bleeding, we come to a poor black, a native of Jamaica, who being discharged from His Majesty's service in the Mediterranean, fell into want and distress at Malta, which terminated in mania. The predominant idea in his hallucination was, that he held con-

verse with the Almighty, who often said to him—"never fear massa; me do great tings for you."

"From the date of his admission to the period of his death, the following were the symptoms under which he laboured, in respect to the natural and vital functions:—

"Pyrexia, dyspnœa, hurried circulation. Tension of abdomen, morbidly dry skin, voracious appetite, constipated bowels. After an uncertain period the above symptoms would be changed for the following:—Languor and debility; lowness of spirits; no appetite; tongue more furred than usual; pulse less frequent; effusion in the abdomen; diarrhoea. During this latter state of the case his hallucinations disappeared.

"He complained of pains, which he referred generally to the umbilicus and right hip-joint. These were partially relieved by remedies employed.

"On April 6, 1819, he was seized with enteritis, and died on the morning of the 8th." 313.

Dissection. There was great vascularity in the brain and its coverings—the cerebral mass itself very firm—ventricles distended with fluid. In the abdomen the viscera were all so agglutinated by adhesive inflammation as not to be separable without tearing the parts. The omentum was enlarged, firmly attached to the parietes of the abdomen, and when cut into, resembled pancreas. The surface of the intestines was covered with numerous small cartilaginous bodies. The mesenteric glands were as hard as cartilage.

We cannot but suppose that the visceral disorder here preceded and caused the cerebral and intellectual derangement.

The fifth case stated by our author is very satisfactory in showing the diminution of the mental disorder, *pari passu* with the improvement of the natural functions. The patient was a young unmarried woman, who had been slightly affected with insanity about three months, but gradually getting worse. On admission she was constantly talking, laughing, or crying—bowels generally in a constipated state—tongue covered with a dark brown fur—breath very offensive—pupils more than naturally dilated. The head was shaved and blistered—she was briskly purged with calomel, jalap, and tartarized antimony—and ordered to use the shower bath every second morning. She was bled once, having a cough and oppression at the chest. Under this treatment the state of the chylopoietic functions improved, and the mental derangement disappeared. For several other interesting cases we must refer to the work itself.

Hepatic Mania. We now come to "maniacal affections

connected with disease of the liver and other hypochondriac viscera." In all ages there has been a conviction among physicians of the relation between morbid states of the epigastric viscera and certain disorders of the mind, particularly dejection of spirits—hence the term hypochondriasis attached to habitual melancholy bordering on insanity. Dr. Prichard is disposed to view these affections of the hypochondriac viscera, as concomitants rather than causes of the desponding condition of the mind alluded to. In this we decidedly disagree with our author—for had we no other evidence than that of our own personal feelings, we could not entertain a doubt of these depressions of spirits, and irritability of temper, being frequently, nay generally, *caused* by derangements of function (whether the structure be altered or not) of the abdominal organs. Dr. Prichard observes that "there is, however, a much more firmly established malady sometimes existing in the viscera of the abdomen, in persons labouring under maniacal disorders." This malady was first pointed out conspicuously by Dr. Cheyne, in his work on comatose diseases, where he cites a statement of Mr. Todd, one of the surgeons to the House of Industry, "which, if strictly correct, is most remarkable," namely, that—"in every dissection he (Mr. Todd) has made after idiotism and mental derangement (*and he has made upwards of four hundred*) he has found the *liver* more or less diseased. He observes, after insanity, generally no great change of colour; but the organ is more bulky, with a thicker edge, and always connected by preternatural adhesions, sometimes of great extent, to the peritoneum." We have made inquiries respecting this remarkable statement, and we consider it our duty to say that there is an error in it. We absolve Mr. Todd from all wilful misrepresentation; but still (and we have it from the very best authority) the statement is incorrect. It would indeed be almost a miracle, if, out of four hundred dissections of maniacs, not one were found free from derangement of structure in the biliary organ. In Dr. Prichard's own experience the instances have not been very numerous in which organic disease of the liver, or other large viscera, has been discovered in conjunction with maniacal disorders. He confesses, however, that in the investigation of this subject he laboured under "some disadvantages," the nature of which he has not thought proper to state. Dr. Prichard subjoins the minutes but of one case of this form of disease—it is, however, a striking one.

A man, aged 42 years, tall and muscular, some of whose parental relations had been afflicted with madness, was admitted under a frenzy warrant. The corporeal symptoms,

on admission, were, pain or sense of weight across the forehead, over the eyes—contracted pupils—white tongue—constive bowels—scanty and high-coloured urine—great restlessness. Depletion gradually restored him to apparent health of body and mind, and he was discharged in somewhat more than three months from his entrance into the hospital. A domestic irritation immediately lighted up the disorder of the mind anew, and he was obliged to be once more confined. By laxative medicines and the shower bath, the symptoms of mental disorder were subdued, but the patient was found to labour under considerable disease of the abdominal viscera. The abdomen was swelled, and painful on pressure—urine scanty—thirst troublesome—bowels irregular—cough with oppression of breathing—chilliness. Purgatives, diuretics, and bitter aperients gave occasional relief, but he continued ailing for better than two years from the time of his readmission, with very little remains, however, of his mental derangement, when, in October, 1817, he was attacked with the prevailing typhus fever, and died suddenly on the second day of the new disease, without any previous indication of danger.

Dissection. Dura mater extensively and firmly adherent to the skull—and in several places, exhibiting indices of local inflammation—the vessels of the dura mater minutely injected—the membrane itself thickened, and evincing marks of chronic disease—some serous effusion between the dura and pia mater—the latter membrane diseased—on the surface and between the convolutions of the brain there was a layer of coagulable lymph—vessels of the cerebrum turgid, and the substance firm—considerable quantity of serous fluid in the ventricles. In the pericardium was a good deal of serous fluid, and the heart bore marks of inflammation. In the abdomen, the liver was found generally enlarged, and its right lobe in a diseased state. The spleen was diseased; its substance like grumous blood. The kidneys were enlarged—the alimentary canal healthy.

Dr. Prichard thinks, that the primary seat of disease was in the liver, and that the encephalic disease was secondary, or symptomatic of the hepatic affection. We believe with Dr. Prichard, that abdominal obstructions have a stronger tendency to derange the cerebral functions and structure than *converso*; but it is often very difficult to say in which class of organs the disease commences.

The ninth chapter of Dr. Prichard's work is on cerebral disease, giving rise to mania, and occasioned by the direct operation of noxious agents on the brain and nervous system.

He divides this chapter, or rather the cases composing it, (for it is principally occupied with cases,) into three parts:—according as the disorders result from mechanical injuries, physical causes, or mental emotions.

The instances are very numerous of mania following injuries of the head; and the rationale of such causes is so obvious, that we may pass over the subject entirely.

In respect to the class of physical causes acting directly on the brain or nervous system, Dr. Prichard notices them under distinct heads: viz. 1st. Chronic inflammation and its effects, as tumours, or other spontaneous changes of structure, often connected with scrofulous diathesis. 2d. Noxious matters taken into the stomach with the aliment or otherwise. Of the poisons which stimulate the nervous system and induce diseased action, some are medicines, for instance mercury, which in some peculiar constitutions, induces maniacal affections. But the most frequent cause of insanity, under this head, is the immoderate use of wine or spirits. Dram-drinking is a very common precursor of madness among the lower orders of society. Where the predisposition to insanity, indeed, is very strong, diet alone, when too stimulating in proportion to the excitability of the constitution, may, and does bring out mental derangement. Patients of this class enjoy good health as long as they live abstemiously and take sufficient exercise, but become victims of this or some other disease, as soon as they indulge in full diet. External heat is not unfrequently the exciting cause of insanity—but especially the alternations of heat and cold. In this way we may often account for those periodical attacks of mania which occur every spring or summer in some people, unless they adopt certain means of obviating the effects of returning heat, and sudden vicissitudes of temperature. The cases related by our author, in the way of illustration, are sufficiently in point, and deserve the attentive perusal of the reader. The general line of treatment, in these cases, is touched upon in our last number, page 147.

The influence of moral causes, or rather of the mental emotions excited by them in producing maniacal affections, is so notorious, that many physicians and others imagine the whole theory of such diseases to hinge upon this species of agency.

“The fact is, however, that the mental impressions and emotions of the lunatic are much more frequently the consequences, than the causes of his malady. Every insane person has some false impressions, and his hallucinations engender more or less of passion, and what seems to be morbid emotion. A lunatic, whose disorder had its original source in the state of the natural functions, and who

would have continued sane during his life, if his bowels or liver had performed their proper actions, or if he had not induced a morbid excitement by dram-drinking, will talk wildly and vehemently upon whatever subject the current of his thoughts, and the habits of his former life, have rendered him most disposed to dwell upon. He contemplates them erroneously, mistaking some day-dream for a reality; and the emotion which this erroneous impression excites, is supposed by those around him to be the cause of his disordered state: whereas the whole phenomena of his derangement are consequent upon a disease of the brain, induced by merely physical causes." 369.

Although this consideration may lead us to reduce very much the number of maniacal cases hitherto referred to moral causes, still the existence of such a class cannot be questioned. It is nearly certain that some organic operation of the brain is the physical cause, or at least, the universal antecedent of perception. It is, therefore, reasonable enough to suppose, that too strong and too vivid impressions of a moral nature may, and frequently do, derange the functions, or even the structure of the brain, and thus lead to insanity. A concomitant circumstance of strong mental emotion and of vivid thought, is almost invariably an increase of vascular action, or determination of blood to the brain. Of all kinds of mental emotion, there is none which operates so frequently in producing disease, as fear or apprehension concerning the future. The propensity to look forward with hope and fear seems to be so necessary to self-preservation, that it is common to many, ("perhaps, says Dr. P. to *all*,") animated creatures. In the habits of the ant, the bee, and of birds, we especially observe the effects of this principle; but we greatly suspect that, in animals, it is merely an impulse of instinct, whereas, in man, it is almost entirely the offspring of reason, or a contemplation of the possibilities or probabilities of what may happen in future. In man too, there is no limit to this anxiety about the time to come.

"Even death, which the experience of our senses presents to every one as the '*ultima linea rerum*,' has never been with the generality of men, in any age or country, the boundary of their anxious expectations. Philosophers have endeavoured in vain to make them wiser in this respect. The propensity is universal and unalterable by circumstances; and it may hence be concluded, like the pursuit of pleasure, and the aversion to pain, to be a principle in the natural constitution of man.

"The dread of future evils, which in the present scene of existence is held in some restraint by the experience of realities, expands into infinitude after the barrier is passed. A thousand horrible forms hang over the path which the human imagination has marked out to its view through the regions of fatuity. Hence death becomes the king of terrors: not by the simple horror of non-ex-

istence, but as ushering us into an unfathomable abyss of vague anxieties." 372.

It is curious that, whereas our anticipations respecting the things of *this world* are usually of a cheerful nature, consisting of hopes rather than fears, yet the expectations which relate to the *future*, or unknown world, are generally of a gloomy and melancholy description, consisting of fears rather than hopes. Yet there seems to be no obvious cause why the ancient mythologists should have held out more of penal sufferings than agreeable prospects in the world of spirits. Our author thinks, and not without show of reason, that the superstitions of mankind have not been merely the creations of the fancy, but principally of the *conscience*. It would seem, indeed, that a certain persuasion of moral demerit or delinquency has been a universal impression on the human mind in all ages. With this has been naturally associated the idea, that we are accountable beings, and that there are certain unseen powers, before whose tribunal we may, and probably will, be arraigned. Even philosophers have not always succeeded in emancipating themselves entirely from these apprehensions:—witness Voltaire, who, in his last illness, sent for a Capuchin, confessed and received absolution.* But we are now verging on the grounds of the moralist or theologian; and, we are only concerned with this subject as far as the theory of religious insanity is connected with it. Now, although there would appear to be some innate propensity in the human mind to ponder on futurity, with some gloomy apprehensions respecting the state of departed souls, yet there can be no doubt that the frequency of insanity is considerably increased by the ideas which are publicly inculcated, (and, also, the *manner* of inculcating them,) by certain sectaries in religion. We are not sufficiently acquainted with the domestic history of the ancients to determine in what degree insanity prevailed among them; but we may reasonably suppose, that the superstitions which could induce mothers to put their infants into the mouths of crocodiles, must have abounded with sources of intense emotion, and frequently led to insanity.

"Even the classical faith of Agamemnon, who cut the throat of his daughter, in order to procure a change of the wind, must have produced many a religious lunatic besides Orestes. It would, perhaps, be rash to assert, and yet it can hardly be doubted, if human nature is every where alike influenced by similar causes, that the victims of superstitious terror were more numerous among the heathens of antiquity than they have been among the generality of Christian nations." 376.

* Grimm's Correspondence.

Although it is manifest that the pure doctrines of Christianity are calculated to tranquillize rather than disturb the mind, yet it must be confessed, that the doctrines of some churches and sects are more favourable to the development of insanity than those of others. In the Romish church the facility of obtaining absolution, and the doctrine of purgatory, are well calculated to appease the apprehensions of an alarmed conscience. On the other hand, the doctrine of predestination cannot fail to excite terror and dismay in the minds of those who are impressed with such a persuasion. Still, as Dr. Prichard well observes, much less depends on the creed or tenet, than on the style or mode of representation prevalent in any particular time or country. At present, in most of the catholic countries, (excepting France, of course, where there is no religion,) there is very little energy or vehemence of declamation, and facts would show, Dr. P. affirms, that religious madness is now comparatively rare among the inhabitants. In those countries, also, where the reformed religion has been long established, as in Scotland and the Dutch provinces, the clergy have laid aside the impassioned oratory for which they were once so remarkable—consequently they are nearly on a par with the catholic countries in respect to immunity from *mania religiosa*.*

"After all, our ideas of pathology will be very erroneous, if we do not bear in mind that a certain predisposition in the physical state of the brain is a necessary condition, in order that the above-mentioned cause, however powerful as a moral agent, may give rise to insanity. Superstition is indeed itself a disease, but it is a disease of the mind: it is only when its influence is exerted on a nervous system; weak by organization, that the disorder in the corporeal organs, which constitutes insanity, is produced. We have ample proofs that the most abject and fearful superstition may exist, and may torment its victim through life, without giving rise to any insane hallucination, properly so termed." 379.

"When fear and anxiety in persons of maniacal predisposition, respect only the bodily health and sensations, and amount to nothing more than an unnecessary apprehension of diseases, accompanied by low spirits and extreme irritability, it is termed hypochondriasis; but when the hallucination arises to a certain pitch, as, for instance, when the patient fancies himself a tea-pot, it is manifestly insanity. "Anxieties of this sort are the consequences, not the causes, of a diseased action in the brain." This may be so; but we be-

* For many curious facts collected by Dr. Barrows in his able "*Inquiry*," we refer our readers to that publication.

lieve also, that this *diseased action* in the brain, is itself often a *consequence* of disordered function or structure in other, and distant parts of the body.

In a country like this, where commercial enterprise engages so many individuals in hazardous pursuits, grief, and especially disappointment, form frequent moral causes of insanity. It is well known that, during the horrors of the French revolution, the hospitals were filled with insane inmates, partly from the influence of grief and domestic calamities—partly through the violent passions excited in the struggle of political parties. In all these, and other cases of mania, arising from the effect of emotions, “there is considerable disorder of the natural functions.” No doubt of it—we can have no idea of a moral cause producing insanity without first deranging some important function of the body. In this point of view, we can very easily believe the following assertion.

“I have repeatedly seen maniacal affections, which seemed to have been brought on by passions, relieved in a very short time by remedies which acted merely on the body.” 381.

The moral *treatment* of the insane is now well understood by all—indeed, there is nothing in it which might not have been suggested by common sense and discretion. The cruel methods which have been adopted in some establishments, to the disgrace of our nation, must have owed their origin to carelessness and indifference, rather than mistaken ideas, since it is hardly possible to suppose that any medical practitioner could be so stupid as to expect, that any “beneficial effect could result from inflicting corporal severities in the cure of a disease of the brain.” This is true; but yet, we occasionally meet with certain almost indomitable spirits that require measures apparently harsh, else the mental violence cannot be subdued, however we may act on the body by medicines. At the same time, we agree with our author in the following remark.

“I believe that most of the vauntings which are set forth, in the present time, respecting the greater skill displayed in certain establishments in the moral treatment of lunatics, and the greater humanity of certain practitioners, has its origin in motives which are easily traced, and which are unfortunately but too common in their operation.” P. 382.

Our analysis has now extended so far, that we must pass over the subject of somnambulism or ecstasis, on which our author, as usual, makes many sensible observations, and ingenious remarks.

Dr. Prichard's work has afforded us much gratification and information on a most important class of human affliction.

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tions. It stamps the author as a man of accurate observation, unwearied attention, and profound thought. Let him remember that his talents are lent to him, not merely as an annuity for himself, but also as a legacy for the public. Let him, therefore, persevere in improving those talents to the utmost of his power, and employing them for the benefit of mankind at large. His reward will be an approving conscience within, and a fairly earned reputation abroad. What can be more grateful to a sensible and virtuous mind?

V.

Essays on Surgery and Midwifery; with Practical Observations, and Select Cases. By JAMES BARLOW, Surgeon. With Plates. Octavo. London, 1822.

(Second Analytical Article, concluded from page 77.)

In a former Number we gave an analysis of the first part of the volume before us. We now proceed to the second, or obstetrical portion of the work. The first Essay embraces an inquiry into the various opinions respecting the management of the placenta. This subject is prefaced by a disquisition on "the *proximate* cause of the pain and difficulty attendant on parturition," which our author is more inclined to impute "to the habits of dissipation and voluptuousness, and the deterioration of physical strength, than to any *immediate* infliction at the fall." We think the term *proximate* is ill applied here, at least as far as relates to civilization and dissipation; for they can have acted only as *predisposing* causes to the pain and difficulty attendant on man's entry into the world. With her Creator's fiat, that "in sorrow should she bring forth," we have nothing to do here; but, of the fact that civilization and refinement *increase* the original difficulty, we can entertain no doubt; for the contrast between the upper and lower classes of society, and still more between the savage and civilized, is too manifest not to carry conviction to the mind of the most inattentive observer.

Hippocrates, in several parts of his writings, but especially in books "de Morbis Mulierum," and "de Superfætatione," has touched upon the subject of the placenta. His observations are, as usual, full of absurdities. First he directs a number of remedies by the mouth, for expelling the secun-

dines, as garlic, onions, oysters, castor, beet-root, rice, &c.* then he describes an awkward and puerile mode of pulling the cord.† Of a very different complexion are the directions of Celsus;—which, indeed, are followed to this hour. “*Medicus deinde sinistra manu leniter trahere umbilicum debet, ita, ne abrumpat, dextraque eum sequi usque ad eas, quas secundas vocant, quod velamentum infantis intus fuit; hisque ultimis apprehensis, venulas membranulasque omnes eadem ratione manu diducere a vulva, totumque illud extrahere, et si quid intus præterea concreti sanguinis remanet.*”—*Lib. VII. Cap. XXIX.* As the above directions for the extraction of the placenta have not been one whit improved upon during the last eighteen hundred years,‡ we shall not trouble our readers with any quotations from Ætius, Paulus Egineta, Avicenna, or others since his time. Great contrariety of opinion, indeed, has prevailed on this point, till within a very recent period—one party being advocates for immediate extraction, considering the placenta as an inanimate and extraneous substance, and supposing it must prove dangerous to the mother, if allowed to remain in the uterus after the birth—the other party confiding in the almost omnipotent resources of Nature, and leaving the work to her spontaneous efforts. Neither of these doctrines is to be implicitly followed.

“Impressed by a conviction of the efficacy of nature in most instances, I am led to believe, that when art is unnecessary, manual interference becomes injurious; this is manifested on no occasion more clearly, than when the membranes are artificially ruptured during parturition, which generally induces a premature suspension of uterine action, before its orifice is disposed to yield naturally. Protracted labour is thereby incurred, together with a train of subsequent evils, inseparably connected with the whole parturient and puerperal condition; hence it is evident, that no officious interposition should take place between the expulsive action of the uterus, and the advances of the head of the child in the passage, during the regular process of a natural labour, and where the cavity of the pelvis presents no barrier to its course. On all occasions, it is best to watch this guide attentively, to discern her procedure, to support

* *De Morbis Mulierum, LXXIII.*

† “*Cæterum si secunda non facile excidat, maxime quidem ad fœtum appendere sinenda est, et puerpera velut super sella ventri exoneranda destinata, lasanum Græci vocant. Si tandem in altum exstructa sella, quo fœtus dependens gravitate sua secundam simul extrahat.*—*De Superfætatione, LXXVII. V.*

‡ Mr. Barlow says that Celsus claims the merit of being the first who introduced the hand for the extraction of the secundines; but we cannot find such claim in his writings.—*Ed.*

and aid her efforts when inefficient, and when assistance is not requisite, to withhold every unseasonable interference, and forbear to subvert her endeavours by any obtrusive or precipitate attempts either to hasten labour, or extract the placenta by the hand." 195.

Hæmorrhage to a certain extent, after the expulsion of the fœtus, calls necessarily for manual aid in removing the placenta, and thereby enabling the uterus to contract; but unless some cause of this kind require aid, we should not be too officious.

"If the accoucheur, immediately on the termination of labour, and before having waited to ascertain the inadequate functions of the uterus, instantly begin to pull at the funis, or force his hand into that organ, and drag the placenta out hastily, he will frequently hazard the life of the mother, by inverting the uterus, or inducing hæmorrhage by a disruption of the cord, or partial separation of the cake from the uterine surface." 196.

When the efforts of Nature have been uninterrupted during labour, the interval between the birth of the child and the expulsion of the placenta, rarely exceeds a quarter of an hour—and should this period be surpassed, it is still more prudent to wait the recurrent action of the uterus, than have recourse to manual interposition, unless some urgent reason be present. The expulsion of the placenta, however, may almost always be greatly expedited by gently drawing the cord, and pressing the region of the uterus over the pæbis. The after-birth will often lie in the vagina, and come no farther without considerable traction by the cord, or manual assistance. We have known young men wait for some hours, with the placenta in such situation, under the impression that they had retained placenta to deal with. Whenever the insertion of the cord into the placenta can be felt with the point of the finger introduced along the cord, we may be sure that the secundines are clear of the uterus, and may be drawn away without fear.

But although the expulsion of the placenta is, in the great majority of cases, the work of Nature; it is to be acknowledged, that her powers are sometimes inadequate, and then artificial assistance becomes necessary. The chief difficulties connected with the present inquiry, are arranged by our author under the following heads:—

1. Atony of the uterus attended with flooding.
2. Irregular and spasmodic action of the uterus.
3. Morbid adhesion of the placenta.

1. *Atony and Flooding.* This state may be induced by dilating and irritating the os uteri and vagina to expedite la-

hour—by rupturing the membranes—by confined and heated apartments—by imprudent instrumental aid—by rashly dragging the body down, without waiting for the uterine contractions.

After waiting some time, and no hæmorrhage occurring, the uterine efforts being evidently suspended, the woman should be placed for awhile in a horizontal position to appease the system, after which, a mild cordial should be given, and cool air admitted into the apartment, while friction and gentle pressure on the hypogastric region should be employed. If these means fail, one or two fingers should be cautiously introduced up the vagina, whilst the funis is gently pulled by the other hand. If the orifice of the uterus be found in a favourable condition, and the lobulated surface of the after-birth be within reach of the finger, though situated over the promontory of the superior aperture, its expulsion may generally be accomplished by pressure on the abdomen with one hand, and gentle traction of the funis, in the direction of the pelvic apertures, by the other, “at the same time slightly stimulating the uterus by passing the fore-finger a few times around its orifice, or by grasping it from without and exciting it through the relaxed parietes of the abdomen.” Our author cautions the practitioner not to leave any of the filamentous membranes either in the vagina or suspended at the vulva, as they will frequently produce constitutional irritation and fever, besides becoming offensive in a few days from putrefaction. Here Mr. Barlow states two cases of inversion of the uterus; in one, attended by a midwife, he found the woman dead, the uterus wholly inverted without the labia, and the placenta in part attached to that organ. This woman died of profuse hæmorrhage in the space of an hour from the birth of the child. In the other case, the pains had been very violent during labour, and the practitioner informed Mr. Barlow, that on a very slight traction of the funis after delivery of the fœtus, the whole volume of the uterus became instantly inverted.

“On inspecting the state of the parts, I observed the uterus lying without the vulva, and the placenta firmly attached to its fundus, which organs reached midway to the woman’s knees: fortunately, their adhesion to each other was so complete, that little hæmorrhage had ensued, this may be accounted for, by the inversion taking place so soon after birth, and before the uterus was allowed to act and separate from the placenta. Upon reflecting a few moments on the nature of the case, and the impossibility of a body like this, the magnitude of which exceeded that of the head of the child, repassing through the neck of the uterus, I, without delay, grasped the whole substance between my hands, and by uniform pressure, continued for a few minutes, the blood oozed out, and it became considerably di-

minished. I then separated the placenta from its attachment to the uterus, and effected its reposition, by placing the points of my fingers against the fundus, and pushing it through its neck, and the inverted vagina, till the whole hand had completely passed the superior aperture of the pelvis, and entered into the proper cavity. Little or no hæmorrhage followed, and in order to prevent a future descent, a piece of sponge was introduced up the vagina, and retained in this situation by means of a T bandage.

"On removing the plug, and passing my finger up the vagina the following day, I found the cavity of the pelvis nearly occupied by the partially inverted uterus, as it were in a strangulated state of its neck: notwithstanding this disastrous occurrence, by the introduction of the hand, the organ was soon reverted to its natural situation, and the vagina filled as before; the sponge was removed and replaced once every day, or as often as it became offensive, and the woman during several days, strictly kept in a recumbent posture, a cooling plan of regimen was enjoined, the bowels kept open by means of aperient clysters, occasionally administered, and she completely recovered in a few weeks without any material interruption, or return of the complaint. It is lamentable to remark, that I have been consulted in a considerable number of cases of *inverted* and *prolapsed uteri*, of the chronic kind, which, on inquiry, I have traced to the mismanagement of the placenta, and it is probable, that such maladies are more frequent than at first view would be supposed in the present improved state of the art, though I suspect numbers are, from motives of female delicacy, screened from professional notice." 209.

The mode of reposition, when the placenta is adherent to the inverted uterus, as recommended by great authorities, is to return both organs at the same time without attempting separation. This precept, Mr. Barlow thinks, should be received with great caution, "as the bulk of the two protruded organs, when surcharged with blood, will present such resistance to the exertions of the accoucheur, that it cannot be effected without using great violence, and exposing the woman to imminent and unnecessary danger." The subsequent separation within the uterine cavity may again occasion inversion. The best plan, our author thinks, is "to compress the whole substance between the hands like a sponge, by which the blood will escape, and the uterus be diminished in size." By this procedure the placenta will be detached, and the reduction of the uterus itself facilitated.

On all occasions, when the hand is to be introduced for the extraction of the placenta, the contents of the bladder and rectum should be previously evacuated:—and our author thinks that it is more eligible, when either the placenta is to be removed or the fœtus turned, to introduce the hand with the palm towards the pubis.

“ On whatever side the woman be laid, by this means the hand is with greater facility conducted to the feet of the *fœtus* or placenta, particularly in women with pendulous bellies where the uterus is pushed out of the axis of the apertures of the pelvis. The hand of the accoucheur thus conducted into the uterus will be better able to effect the extraction through the axis of the brim, cavity, or outlet of the pelvis, than when employed in a contrary direction.” 211.

Here we should wait the efforts of the uterus, unless an alarming or insidious hæmorrhage be present. In the absence of these, and when the uterus assumes a state of permanent torpor, “ we may with safety withhold these manual means, and even wait two or more hours before attempting extraction by artificial efforts.”* During this interval, the accoucheur should occasionally ascertain the state of the os uteri, lest internal hæmorrhage or contraction of the cervix take place. Frictions and mild cordials should be employed. Syncope or hæmorrhage authorize the immediate introduction of the hand, which is to be moved about in the uterine cavity till the contractile nîsus is restored, after which, the hand may be gradually withdrawn, together with any remaining portion of coagula or loose fragments of the membranes.

In uterine, as in other hæmorrhages, syncope is more alarming than dangerous, as it gives time for a coagulum to form in the mouths of the vessels. It is not easy, however, to determine the precise time when to give cordials, and to what extent, in such perplexing cases. Opium is not implicitly relied on by our author, in uterine hæmorrhage :—“ nevertheless, it is a valuable adjunct in many affections of the uterus, particularly in convulsions, and irregular spasmodic contractions of its muscular fibres.” In syncope attendant on flooding, he thinks it might prove a dangerous medicine.

Where there is reason to expect uterine hæmorrhage and placental retention, from previous occurrences of this kind in the same female, a broad bandage applied steadily, and tightened immediately on the termination of labour, will greatly support the existing laxity of the abdominal parietes, and probably prevent or lessen the hæmorrhage.

Placental adhesion may be known, Mr. B. observes, by gently pulling at the funis. “ If there be an elastic resilient sensation communicated to the hand, it is a certain proof of such attachment.” In a passive state of the uterus, with re-

* Dr. William Hunter's doctrines respecting the placenta, led to a very passive management of the after-birth, and we have no doubt that many lives were lost in consequence. We know that the placenta, whether in abortions or in full-timed births, if allowed to remain, will very generally prove fatal.—*Ed.*

tained placenta, there is sometimes an insidious hæmorrhage, in which case, our conduct must be governed by the quantity of blood lost in a given time.

"When such an occurrence takes place immediately after the delivery of the child, and continues without intermission, till its effects are obviously manifested on the general system by a weak fluttering pulse, pallid countenance, clammy sweats, cold extremities, fainting, with *tinnitus aurium*, &c. &c. the patient becomes exhausted, and would soon expire if the symptoms were not instantly counteracted. In these alarming instances, the most prompt and decisive measures should be employed effectually to remove the contents of the womb, by promoting its muscular contractions in the way above mentioned." 219.

To aid our efforts in such perilous circumstances, our author has frequently witnessed the most powerful and salutary effects from an opiate clyster thrown up the rectum, composed of four or six ounces of cold water, and sixty or eighty minims of laudanum. An astringent injection, of the same temperature, may also be thrown up into the vagina or uterus, to moderate the discharge of blood. This latter injection may be composed of ten ounces of cold water, or of decoction of oak-bark, and fifteen or twenty grains of alum, to be repeated at discretion. A recumbent posture, cool apartment, and quietude, should, of course, be insisted on. If these means fail, our author recommends half a grain of the superacetate of lead, and about the same quantity of opium, to be given every third or fourth hour:—or, ten grains of nitre, ten drops of tincture of digitalis, and fifteen of laudanum, with an ounce of infusion of roses, every three or four hours. In addition to these means, Mr. Barlow applies to the abdomen, cloths wrung out of solution of common salt in vinegar and water—or if ice can be procured, a bladder filled with this substance bruised, and laid on the same part. We have employed ice introduced into the vagina with benefit. It is not easy to form a prognosis in cases of uterine hæmorrhage.

"A woman may be cheerful and apparently bearing the loss of blood without danger, with a pretty strong pulse, not exceeding ninety strokes in the minute, and die instantly; while another may have a pallid ghastly countenance, attended with sickness, dimness of sight, coldness of the extremities, loss of memory, and pulse scarcely perceptible, and still recover.

"Another may have these alarming symptoms, and yet linger several weeks or months, and eventually die of dropsy." 223.

It is difficult to lay down determinate rules respecting the placenta. Mr. B. thinks it desirable, upon the whole, that the expulsion of the secundines should follow delivery in one

or two hours, and that this space should be allowed, rather than removing the placenta by art, immediately after the birth of the child. A profuse hæmorrhage succeeding delivery, and before the exit of the placenta justifies the propriety, our author observes, of *removing the contents of the womb without delay.** For a number of minute observations on this point, we must refer to the work itself.

2. *Irregular or Spasmodic Action of the Uterus.* On this, as on the former head, our author is rather too diffuse, and has been very unskilful in the arrangement of his ideas, so as to compress them in as small a compass of language as possible. Indeed, one of Mr. Barlow's greatest faults, in regard to composition, is tautology and circumlocution.

The most frequent, irregular, and partial contractions of the cervix uteri, occur during or after abortions that happen about the middle period of pregnancy, and are sometimes accompanied with flooding. When they take place soon after the birth of the fœtus, they generally oppose the spontaneous expulsion of the placenta, in an inverse ratio to the advancement of the gestation, and nothing, Mr. B. observes, is more likely to excite the uncontrollable agency of this viscus, than the precipitate act of artificially rupturing the membranes, with the view of facilitating the progress of abortion. Mr. B. thinks, however, that unless hæmorrhage or convulsions attend placental retention in these premature periods of utero-gestation, "we need not be over solicitous about the deliverance of the placenta." Mr. B. prefers leaving it to be expelled by the efforts of Nature, which will generally be sufficient to effect this purpose in less than twenty-four hours after the birth of the fœtus. Should the patient, therefore, appear to be exhausted by a continued emission of blood, Mr. B. recommends, in the first place, palliative measures, as injections of cold water into the vagina, the ap-

* In this article, we have thought it better to give an analysis purely of the sentiments of an old and experienced practitioner, than mix them with the sentiments of other writers. We may be allowed here, however, to quote a short passage from the work of Burns, which is strong authority on the interesting subject under discussion.

"The retention of the placenta," says he, "is not the cause of the hæmorrhage, but a joint effect together with it, of the torpor of the uterus. Our primary object, therefore, is *not* to extract the placenta, but to excite the uterus to brisker action. How improper and dangerous then must it be to thrust the hand into the uterus, grasp the placenta, and bring it instantly away. By this practice we are apt to injure the uterus, and certainly cannot rely upon it for checking the hæmorrhage."

plication of ice, and the medicines mentioned in the preceding section. Plugging the vagina and mouth of the uterus with lint, tow, or sponge, soaked in a strong solution of alum, and supported firmly by the T bandage, keeping the patient cool and quiet, is recommended by Mr. Barlow, in these cases. But flooding after delivery at the full period, renders this measure more doubtful; for the uterine parietes being more expanded and less disposed to contract than in cases of abortion, blood may accumulate in, and distend the uterus, while the plug is in the vagina. This may be obviated, he thinks, by the application of counter-pressure uniformly continued on the hypogastric region, prior to the introduction of the plug, by means of a broad roller passed a few times round the body and over the lower part of the abdomen. In abortions at an early period, attended with hæmorrhage, where it would be impracticable to introduce the hand into the uterus, and where the discharge has been unabated for a long time, recourse should be had to opium in addition to the forementioned measures.

The hour-glass contraction of the uterus, our author observes, may be ascertained to extend its fundus upwards above the umbilicus, by the application of the hand on the hypogastric region—its structure will also appear to the touch as if it were encircled with a tight ligature, leaving a transverse sulcated impression on the part. Our author has known the contraction to embrace the substance of the placenta, which is one of the most dangerous and perplexing species of uterine spasm.

“If the woman be not much affected with syncope, a strong opiate may be given to relax the spasm, and induce a corresponding action of the uterine fibres; after which the accoucheur may proceed to introduce his hand cautiously up the vagina uteri, taking care not to separate any portion of the placenta from its surface as it passes along, till it gets beyond the encircled part of that viscus, lest hæmorrhage be produced; and having gained access into the upper chamber, he may then commence the operation, and effect the separation from above downwards. By these means the fundus will have liberty to contract on the hand as it is withdrawn along with the placenta. If the extraction be attempted by commencing the operation near the cervix or lower cavity of the uterus, and before the spasm of the columna uteri be removed, an hæmorrhage will inevitably ensue, and the patient be thereby exposed to imminent danger in the interim, or during the removal of the remaining portion of the mass from the upper recess of the womb.” 245.

In some instances, especially where the gestation has not been completed, the contraction is at the os uteri, where, like a purse, it embraces the funis, anterior to the placenta.

In this case, our author observes, there is fortunately little or no hæmorrhage, and it would be wrong to draw the funis or attempt the introduction of the hand. If flooding should succeed the relaxation of the spasm, then the accoucheur may have recourse to extraction at discretion. If the spasm continue, however, opium may be tried internally, and frictions over the uterine region, trusting eventually to time and the efforts of Nature, "before attempting to extract the placenta by manual efforts."

3. *Morbid Adhesion of the Placenta.* This is fortunately not a very frequent occurrence. The secundines, though not prone to disease, do sometimes take on a morbid structure, assuming a scirrhous or cartilaginous state, opposing a formidable obstacle to the separation after birth. Our author has, in more than one instance, traced these morbid adhesions to an injury inflicted on the uterine region during gestation. Under such afflicting events, the attempt at disunion should be made with great care and deliberation.

"To whatever extent such attachment exists, and after the accoucheur has waited the appropriate time for the efforts of nature without prospect of advantage, he may commence the operation by conveying one hand cautiously into the uterus, whilst the other is applied on the hypogastrium to stay that organ. If only a few lobes of the placenta be identified with the surface of the uterus, the extraction may generally be accomplished by beginning at the in-edges, and peeling off the morbid adhesions from the uterus, thus gradually separating the different portions in succession, till a complete disunion be attained, and the substance of the placenta being grasped in the hand, the whole may be brought forth without further trouble." 258.

Should the os uteri remain in a flaccid and distensible condition after such operation, it announces a more unfavourable result, and affords reason to dread fainting and flooding; to obviate which, the surgeon should pass his hand again into the uterus, and keep it in motion there till an evident contraction be perceptible to the touch, during which, cold air should be freely admitted into the apartment, a compress soaked in cold vinegar repeatedly applied to the abdomen, and the horizontal position, after removal of the hand, strictly enjoined.

In those unfortunate cases where a permanent and extensive union has taken place between the uterus and placenta, resisting every prudential attempt to break through the cohesive attachments, a difficult question arises, whether to hazard a separation of these organic adhesions by force, or abandon the expulsion to the powers of nature—"for

while a rash interference is censurable, an implicit confidence in the powers of Nature may be equally improper." Our author observes that, in his experience, where fatal consequences attended protracted retention in one instance, rash and precipitate extraction proved fatal to many. Risk attends both measures. "If the whole, or even a portion of the placenta remain detached in the uterus for any undue space of time, putrefaction and absorption will generally take place, and its detention eventually prove a source of much evil—such as distension of the abdomen, fever, inflammation, fetor of the lochia, constitutional irritation, diarrhœa, and not unfrequently death."

"Under these circumstances the accoucheur will yield to the lesser evil, by passing his hand into the uterus at frequent intervals, and scooping out any extraneous and offensive coagula from its abode, or otherwise by the more eligible method of antiseptic injections, as before mentioned." 261.

For some judicious observations on moles, polypi, and other unnatural growths in the uterus, we must refer to the volume itself.

At page 273 Mr. Barlow relates a case where the expulsion of the placenta preceded the delivery of the child. He was called to a woman in labour of her second child, the uterine pains being accompanied by a slight discharge of blood at intervals. The os tincæ was rigidly contracted. Our author left her, but next morning he was summoned, and found her seated on a chair in a state of great alarm, being informed by the attendants that a profuse discharge of blood succeeded every pain. On requesting her to go to bed she was seized with a violent pain, which instantly expelled the placenta, and disparted the funis about six inches from the child's navel. A great effusion of blood followed, and the woman fainted. In this alarming situation Mr. B. determined on delivery by turning. On passing the hand up the vagina he found the orificium uteri in a lax and dilated state, and the shoulder presenting at the brim of the pelvis. By conveying the hand past the projecting part of the fœtus, he laid hold of its feet, and brought them down through the pelvis, whilst the shoulders receded backwards into the cavity of the uterus, thus accomplishing the delivery in a few minutes. The child appeared feeble, but soon recovered on being placed in a warm bath. A considerable hæmorrhage followed the birth, and therefore Mr. B. passed his hand into the uterus, and kept moving it therein, for a short time, till its contractions were renewed, when the hand was removed and the flooding abated. The woman soon recovered. We

met with a case about seven years ago where the placenta presented, and was soon expelled, with very little hæmorrhage. The child followed in the course of one or two pains, and the woman lost very little more blood than in many cases of common labour. To a friend of ours, a similar case occurred; but the placenta and head were expelled by the same pain, and the body followed in two or three minutes without accident.

A few years ago our author met with a case of twins where several days intervened between the expulsion of the two placenta. The woman had been delivered during his absence, of two fine children. On his return next day, he found her restless, and labouring under much pain, with a slight hæmorrhage at intervals. An aperient draught, which operated thrice—an opiate at bedtime. Next day she was in the same state—he laid his hand on the abdomen, which appeared uniformly distended as high as the umbilicus, and rather tender on pressure. These symptoms led our author to examine, when, to his surprise, he found the *orificum uteri* wholly occupied with a placenta, which he readily extracted, a large gush of offensive coagula immediately following. The woman was much relieved by the change; but, for several succeeding days, there were occasional discharges of grumous blood from the uterus, accompanied with symptoms of puerperal fever, which disappeared in two or three weeks.

4. *Advantages and Disadvantages of inducing Premature Labour.* Cases but too often occur, where, owing to morbid structure of the female pelvis, parturition, at the full period of utero-gestation, cannot be accomplished without danger, either to the mother or child. If premature induction of labour can prove a substitute for embryulcia, humanity as well as policy would induce us to give it the preference.* The cruelty too often inflicted on the foetus, by the crotchet, and the danger attendant on the mother, are sufficient reasons for preferring the process in question, with the view of preserving the life of the former, and lessening the risk of the latter.

“It is manifest that premature labour should never be attempted before it has been proved by the event of one or more destructive foetal births, that the pelvis was so much distorted, that life must have been unavoidably sacrificed before delivery could be accomplished, because a single fatal instance is not always a sufficient warrant for the operation.” 281.

* “Premature labour was first induced in this country, with success, by Dr. Macaulay of London, about the year 1766.”

It should be remembered that, in all cases where the head presents, (except in extreme degrees of distortion,) it is advisable to try what the powers of Nature will do, and never to have recourse to instruments till we are certain that she is inadequate to perform her office—there being few cases, (if the head be not absolutely too large and ossified, or the pelvis greatly distorted,) where the child may not be forced along and delivered with safety by the pains alone. By waiting in this manner, we gain a double advantage—first from the lengthening of the fœtal head; and next from its being forced low down into the pelvis, so as to render its extraction by instruments more safe and easy. It is evident that an accurate knowledge of the dimensions of a pelvis should be gained, before taking any decisive step on such occasions. The hand or fingers, Mr. B. justly observes, are preferable gaugers to all the *pelvimeters* that ever have been invented. When making this indispensable inquiry respecting the pelvis, and on passing the fore and middle fingers up the vagina, if the os coccyx, or any part of the sacrum or lumbar vertebræ, be perceived to project unusually into its cavity, or if the rami of the ischia approach so near each other as to admit no more space than two fingers to be placed edgewise betwixt them, we may conclude that, primary malformation exists in the bones which compose one or both of these apertures.

"Yet it not unfrequently happens that the brim of the pelvis is considerably abridged, and the inferior aperture or outlet, is even wider than natural, and to obtain an accurate estimation of the contour of the two straits of the pelvis in every direction, when one or two fingers are inadequate for this purpose, it is necessary when admissible, to have recourse to the passing of the whole hand by the vagina into its concavity, the first three fingers of which are to be conducted to the brim, where the admeasurement may be generally ascertained, to the space of a few lines, by alternately placing them diagonally in the superior strait in the following manner :

"I.—If when the hand* is conveyed through the vagina to the brim of the pelvis extended, and the fingers kept close together, the side of the fore-finger touch the os pubis, and that of the little one, the projecting angle of the sacrum; the distance will be about three inches.

"II.—If on moving the little finger out of the way, and placing the other three conjunctively, in the same diagonal direction as the fore directed, and their sides come in contact with the pubis and promon-

"* A tolerable sized hand methodically directed up the vagina, will readily pass through the apertures of a pelvis, the small diameter of which does not exceed two inches and three quarters from the pubis to the sacrum, even if the lateral dimensions are contracted."

tory of the sacrum ; we may conclude that the space betwixt these two opposing points, is little more than 2 inches, an opening through which no mature fœtus can possibly be extracted alive, nor even if we suppose the space to be $2\frac{1}{2}$ inches.

" III.—When only two fingers can be placed edgewise in the fore-mentioned manner, and betwixt the two angles of the short aperture of the pelvis, the extent will not exceed $1\frac{1}{2}$ inches." 292.

From this last limited extent, the accoucheur may be assured that, when the period of gestation is completed, unless a greater distance can be obtained in either of the lateral diameters of the superior aperture, no other mode of delivery will be so safe for the mother, as the crotchet, or Cæsarian section. If the superior strait of the pelvis, from the symphysis pubis to the sacrum, or in any part from the anterior to the posterior point, exhibit a space for the reception of the head equal to three inches in diameter, we may not altogether abandon the hope of extracting a living mature child through such contracted limits, with either the forceps or lever—especially if the child's head be small, and the bones not too firmly ossified or connected by syneurosis, to move a little one on the other. On the contrary, when the pelvis is found not to exceed $2\frac{1}{2}$ inches from pubis to sacrum, or in any other direction, our author is persuaded, from long experience, that no mature fœtus can be extracted without inevitable destruction to the child, and great risk to the mother.

" It will be evident from these facts, that it is in this intermediate degree of distortion (comprising not more than a quarter of an inch) betwixt the possibility of effecting delivery without injury to the mother or fœtus with the *forceps* or *lever*, and that extent of deformity which requires the application of the *crotchet*, that premature delivery seems most likely to be advantageously produced. In such cases this method is preferable to the sacrifice of a mature fœtus by Embryulcia, whilst unavoidably endangering the life of the parent." 303.

When this operation (induction of premature labour) is determined on, we ought to select such time for its completion as may secure to the child every possible advantage for acquiring an uninterrupted birth—for the nearer the period of operation to that decreed by Nature, the greater the prospect of a successful issue. It has been proposed to excite premature delivery before the completion of the seventh month.

" But if we consider the puny condition of such ephemeral beings, and the misery to which their premature birth subjects them, we shall have little reason to prefer such a state to a mere nonen-

tity, while the community derives no benefit from such precipitate proceedings." 311.*

It is well known that so long ago as the days of Hippocrates, it was supposed that a seventh month birth was more likely to do well than a foetus born in the eighth month—and the truth of the observation is allowed by our author and by the generality of accoucheurs. But the cause of this curious phenomenon is not so easily ascertained. We shall indulge Mr. Barlow in his explanation, and in his own words.

"It is granted that there are more seven months children reared than those of eight, and daily observations sufficiently prove that abortions take place more frequently about the seventh month than at any other period of gestation. To account for this fact, it may be remarked, that there is comparatively a greater yielding of the cervix uteri at this time, than at the eighth month. The functions of the uterus manifest less resistance to the causes which oppose parturition, and its neck unfolds its contractions with greater facility. The foetal head is also somewhat less, and parturition is rendered easier. During no stage of gestation does the uterus perform its parturient office with more irregularity than at this latter period: consequently the bulk and firmness of the foetal cranium opposed to uterine resistance, and connected with a variety of casual and operative causes in severe and protracted labour, will unavoidably subject the foetal head to a state of undue compression, and its neck sometimes to strangulations. These are accidents to which it would be less exposed at an earlier period of pregnancy under similar circumstances during its evolution from the womb. On these grounds we may account for the greater probability of rearing a premature foetus of seven, than one at eight months. There is therefore no reason for believing any thing ominous in numbers; nor can I imagine any other method of elucidation, than what is thus supported by observation and experience." 319.

Here Mr. Barlow gives a short sketch of the history of premature birth, beginning, as usual, with the Bible, and quoting a passage from the second book of Esdras—"the women with child shall bring forth untimely children, of three or four months old, and they shall live and be raised up." Avicenna declares he has seen lively children born and reared in the sixth month. Brouzet, in his Essay on Medical Education, records an instance of a foetus living at the early period of five months. The Mareschal Duc de

* The author has purposely avoided detailing the steps of inducing premature delivery, lest the knowledge of it should be applied to improper purposes. All professional men know that it merely consists in rupturing the membranes and discharging the liquor amnii.

Richelieu was born in the sixth month. Peu, Maubray, La Motte, and Van Swieten relate several examples of premature birth succeeding. The most modern and authentic instance is that recorded by Dr. Rodman in the *Edinburgh Medical and Surgical Journal* for 1815, where a child was born in the fifth month of utero-gestation, and successfully brought up. From our author's own observations he is convinced "that there are as many instances of successful births at the seventh as at the eighth month (we think more) owing probably to the causes before stated. Hence it is indispensably necessary for the accoucheur to bestow as much attention to procure living children in the former as in the latter period; and to adopt the mode of resuscitation in the early as in the more advanced births." Several cases have occurred in Mr. Barlow's practice, where reanimation has been effected after a lapse of half an hour from the time of birth. It may be remarked, en passant, that every induction of premature labour before the termination of the seventh month of pregnancy, can only have in view the safety of the mother. It can avail but little in preserving the child.

The *Sigultian* operation, or section of the symphysis pubis, is properly condemned by Mr. Barlow. It is of great consequence, he observes, in cases of distorted pelvis, to discriminate between exostosis and malacosteon, or mollities ossium. In the *latter* disease the bones will yield considerably, either by the introduction of the hand or the impulse of uterine action on the body of the child during labour acting like a wedge in forcing open the pelvic apertures. In Exostosis no such change is to be looked for.

"Eight cases of this species of progressive deformity have fallen under my notice; in one of which the projection of the last lumbar vertebra, at its union with the angle of the sacrum, was so much bent forwards into the cavity of the pelvis, that, on the introduction of the fore-finger up the vagina, a protuberance was presented to the touch very much resembling the head of the fœtus, pretty far advanced into its cavity.* On carrying the finger a little higher anteriorly past the projection, I could with some difficulty ascertain the head of the child; but on moving it around, the distortion appeared so great, that the whole circumference did not exceed that of a half-crown piece.

"This occurrence was on the 29th of April, 1792, at which time I delivered the woman with the Crotchet, and the bones of the pelvis receded considerably to the impulsive efforts, during the

* * This protuberance had been mistaken for the presenting part of the child's head by the attending practitioner, who had, previously to my being called in, been in attendance two days and nights, and had determined on perforating the head with the scissors before my arrival at the patient's house."

extraction of the head of the *fœtus*; yet, notwithstanding the flexibility of the bones of the pelvis, and the debilitated state of her constitution, she recovered speedily and without interruption." P. 329.

The distortion and structure of the bones of the pelvis, in the other women alluded to, bore such a similarity to those just described, that it is unnecessary to detail the circumstances respectively.

At page 335, our author queries how far it may be moral or just, to induce *early*, premature labour, with the intent of saving the life of the mother and sacrificing that of the *fœtus*.

"The problem is not easily solved; the well-known aptitude inherent in a woman to conceive, the consequent frequency of this occurrence in these situations, and the number of *fœtuses* eventually destroyed with the intent of sparing the life of the parent, are incidents of the utmost importance to the community, and claim a proportionate share of humanity and consideration from every accoucheur concerned on these unfortunate occasions." 335.

For our own parts, we profess that we should not be very squeamish upon these occasions. Where the life of the mother was in question, we should not hesitate, were we certain that there were twenty living *fœtuses* to be sacrificed, in order to save the parent. Till birth the *fœtus* is, in fact, but a branch or part of the mother, and that branch should instantly be sacrificed to save the trunk.

Since the year 1803, our author has been in the habit of frequently exciting premature labour, with success to the mother in every instance, and generally with safety to the child. As the cases bear a great affinity to one another, he has selected one case out of the number to serve as a specimen of the rest. Of this we shall present the particulars to our readers.

Case. Ellen Pickles, of Rishton, about three miles from Blackburn, had been afflicted with rickets in her youth, and was still of low stature. She had three children—the two first delivered by the crotchet, owing to a distortion of the pelvis—the life of the third being fortunately saved, and forming the subject of the following narrative. On the 15th January, 1803, Mr. B. ruptured the membranes, and desired her to despatch a messenger to him as soon as she found labour pains coming on. In the evening of the following day, Mr. B. was summoned, and found the os uteri dilated to the size of a crown piece—the pains strong—the head of the *fœtus* moveable by pressure of the finger, consequently not fixed in the superior aperture of the pelvis. In two hours, the os uteri had completely dilated—the head of the child advanced some way in the superior strait, where it remained stationary for two hours longer, notwithstanding considerable uterine action. Thus situated Mr. B. was induced to apply the lever, lest the head of the child

should suffer. In a few minutes, the birth was effected with tolerable ease, and perfect safety to mother and child. The period fixed upon in this case, was the latter end of the seventh or beginning of the eighth month, as nearly as could be ascertained. The child, when born, appeared lively but immature, and is now grown up. The mother died in a subsequent labour, after the use of the crotchet by another practitioner. 345.

Our author had taken accurate admeasurements repeatedly of this female's pelvis, by means of the hand, in the way recommended above, and uniformly found the superior aperture from pubis to sacrum, to measure rather more than 2 inches; and on both sides the space was also perceptibly diminished below this gauge, the inferior aperture appearing somewhat less than natural.

The work before us closes with a synoptical table of the various degrees of distortion incident to the female pelvis, to which are annexed the different methods of delivery, as distinctive guides for the practitioner.

THE SYNOPTICAL TABLE.

	<i>The distance from the upper edge of the Symphysis Pubis, to the superior part of the Os Sacrum, or conjugate diameter of the Pelvis.</i>	
Well-formed Pelvis.	From 5 to 4 inches.	Delivery by the efforts of nature alone.
I. First degree of deformed Pelvis.	From 4 to 3 or 2 3-4 inches.	Delivery by the efforts of nature, or assisted with the Forceps or Lever.
II. Second degree.	From 2 3-4 to 2 1-2 inches.	Premature delivery.
III. Third degree.	From 2 1-2 to 1 1-2 inches.	Embryulcia, or Delivery with the Crotchet.
IV. Fourth degree.	From 1 1-2 inch to the lowest possible degree of distortion.	Cæsarean Operation.

Successful Case of Cesarean Operation.

Formidable as is the operation of embryotomy, that of hysterotomy is far more so. Mr. Barlow has the honour of having performed this terrible operation with success—an honour which few, if any, of his countrymen can claim. This case has been published in the "*Medical Reports and Researches*," for 1798, and been alluded to by many obstetrical and other writers; but, of the present generation of surgeons, few are acquainted with the particulars. We shall, therefore, make them known here.

Jane Foster, of the village of Blackrod, was in her 40th year, of a robust constitution, and the mother of several living children, when she had the misfortune to fall from a loaded cart, the wheel of which passed over her pelvis as she lay on her back. By this accident, she was confined six weeks to her bed, attended by Mr. White, of Manchester, and others. It was supposed that much injury was done to the pelvis, besides fracture of one of the ilia. Soon after her recovery, she became pregnant, and on Friday, November 22, 1793, she was seized with labour pains, being then at the full period of utero-gestation. She was attended on this occasion by a midwife, who having waited some days, without prospect of delivery, called in professional assistance. On the 26th, our author saw the patient, in consultation with Mr. Hawarden, and on examining, per vaginam, was surprised to find, that he could barely pass his finger between the pubis and the last lumbar vertebra. Besides this, the outlet was so much contracted that he could hardly introduce three fingers at that part. With some difficulty, he carried up his finger sufficiently high to judge concerning the degree of dilatation of the os uteri, which appeared to be considerable, but no part of the child was within reach. Her pains had left her the night before—her anxiety was great—pulse full—respiration difficult, which symptom was moderated by the loss of ten ounces of blood. Delivery *per vias naturales* appearing impossible, the Cæsarean operation appeared the only alternative. On the following morning, the poor woman consented to the operation, which we shall give in the author's own words.

"The patient being taken out of bed, and placed upon a table, lying on her back, with her head raised by pillows, I began by making a longitudinal incision five inches and a half in length, as high as the navel parallel to the linea alba, and about two inches to the left of that line.

"The integuments and the left rectus muscle being cut through, a small opening was made through the peritoneum at the upper

part; and by means of a probe-pointed bistoury, this membrane was dilated to the same extent as the external parts.* The uterus was now exposed to view, and an incision of the same length was continued through it. The child presented with its breech, and was extracted through the artificial opening, but unfortunately was dead, yet did not show any material signs of putrefaction. The placenta and membranes were then extracted with the greatest ease. The uterus was very thin, scarcely exceeding that of the peritoneum, and equally so through the whole extent of the incision. No attempt was made to examine the pelvis from the abdominal wound. The hands of a female assistant were applied on each side of the abdomen, to prevent the admission of external air, and to press out any blood that might be diffused among the intestines, after which the sides of the wound were brought together and secured by seven sutures, over which slips of adhesive plaster were applied, and the dressing completed by a few turns of a flannel bandage round the body.

"The peritoneum was not included in the sutures, and no part of the viscera protruded during the operation, neither were there any blood-vessels divided which required to be secured by ligature. It was a fortunate circumstance that no hæmorrhage followed the extraction of the placenta, as was to be apprehended from an atonic condition of the uterus, the effect of long distention. The womb contracted properly, the lochia were about the usual quantity, and continued as in other cases. The poor woman scarcely complained during the operation, so great was her fortitude. Soon after she was put into bed, she slept without taking any medicine for that purpose, and passed a good night. On the 29th she complained of a fulness about the region of the stomach, with an inclination to vomit, and on laying my hand on the abdomen, a degree of tension was distinguishable. Her tongue had a whitish appearance, and her pulse about 120. A laxative clyster was administered with the desired effect, and the painful tension of the abdomen yielded to the stimulating effects of a blistering plaster. In short all the symptoms which had before indicated irritation, now suffered a very obvious remission. Four days having elapsed since the operation, it was thought eligible to remove every other suture; on the sixth the remaining ones were taken away, and the wound appeared perfectly healed.

"Though she had been a nurse to her other children, she experienced no uneasiness in her breasts on the present occasion. Her health continued in an improving condition until December 4th, when it received some interruption for a few days from a diarrhœa, but which was checked by an astringent mixture. On the 10th she

* "It may be requisite to state, that at the commencement of the operation, Mr. Hawarden was suddenly seized with a violent fit of syncope, which wholly incapacitated him from attending to the steps of the operation, and having no other professional person present, I was obliged to be assisted by a female attendant."

ventured out of bed, on the 17th she began to attend to her domestic employment, from which time, to the present, (an interval of 28 years) she has enjoyed a good state of health, menstruated with regularity to the usual period of life, but never been pregnant." 361.

The other two cases having been unsuccessful, we shall not notice them here. The case quoted does infinite honour to the head, heart, and hand of the operator.

We have now extended our analysis rather farther than we originally intended. Mr. Barlow being more of a practitioner than a writer, has occasioned us some trouble, on that account, in analyzing his production. When our author reasons, his language is too often diffuse, and his style not very clear. When he relates facts or observations, it is very much otherwise. The *matter*, however, being valuable, we are very willing to overlook the *manner* in which it is conveyed: and, upon the whole, the perusal of this work has left a very favourable impression on our minds, respecting the talents, the philanthropy, and the zeal of this veteran and experienced surgeon.

VI.

Further Observations on Strictures of the Rectum; with Remarks on the Opinions of some late Writers relative to the Situation of the Disease; and also, on Spasmodic Constriction of the Sphincter Ani; with a Translation of Part of M. Boyer's valuable Paper on that Complaint: accompanied with several Cases, and an Engraving. By W. WHITE, Member of the Royal College of Surgeons, London; Corresponding Member of the London Medical Society; and one of the Surgeons to the City Infirmary and Dispensary, Bath. Octavo, pp. 105. Bath, 1822.

In the Second Number of this series, for September, 1820, we gave an analysis of Mr. White's other work on the subject of anal diseases; it is now our duty to render some account of these "Further Observations" to our readers.

Our author commences by combating a pretty general idea, that strictures of the rectum are always the effect of inflammation. Extensive observation, he says, has convinced him that this, though sometimes, is comparatively rarely the cause of the disease. The length of time the disorder is known to exist—its limited nature, only occupying sometimes a very small portion in the circumference of the intestine—and the

inner membrane having been frequently found in a healthy state on dissection, appear to him to be strong arguments against the doctrine of inflammation being always the cause of simple stricture. Extraneous bodies lodging in the rectum will often, of course, excite a diseased and contracted state of the gut. Our author next combats the general opinion, that strictures of the rectum rarely take place beyond the reach of the finger. On the contrary, it has so happened to him that, "in the course of an extensive practice, very few cases of the simple form of constriction have occurred so low down in the rectum, as to be within the reach of the finger." Mr. White is quite certain that the disease has been often overlooked, when the rectum has been subjected to an examination by the finger only. On looking over a list of 118 cases in his own practice, Mr. White does not find above six, where the stricture was within reach of the finger.

A permanent or spasmodic stricture in the rectum, or about the termination of the colon, presents often a great obstruction to the passage of the *fæces*, rendering the assistance of purgatives or injections indispensably necessary. A distended state of the colon, as a consequence of stricture, claims the serious attention of practitioners, because it produces more distressing feelings to the patient, than he experiences at the stricture itself—a circumstance which is likely to mask the real disease, and lead to the suspicion of some affection of an abdominal viscus.

"Thus, for instance, should the distention be greatest at the superior portion of the ascending arch of the colon, where it lies under the liver, it may be mistaken for a disease of that organ, and this opinion will be further strengthened, should there be any obstruction to the passage of the bile through the common duct into the duodenum; which is not an unlikely circumstance to occur, from the pressure of the colon on that duct. If the distention be greatest in the course of its transverse arch, which passes under the stomach to the left hypochondrium, the functions of the stomach will be more or less disturbed by it, which will be particularly indicated by a great sense of fulness about the epigastric region soon after meals, especially if rather more than the ordinary quantity of food should be indulged in. Should there be an uneasiness, and sense of fulness about the left hypochondrium, where the colon descends before the spleen, previous to forming the sigmoid flexure, it may be mistaken for a disease of that organ."* 12.

* "It is remarkable M. Boyer has also noticed, that spasmodic constriction of the sphincter ani has sometimes been mistaken for these and other complaints."

Repeated instances of inflammation of the colon from over-distention, have come within our author's knowledge, confirmatory of the observation of that excellent pathologist, Dr. Abercrombie. Mr. White coincides with M. Dupuytren, in opposition to several modern surgeons of this country, in believing that a permanent stricture of the sphincter ani may exist, independent of inflammation, fissure, or of constitutional or visceral disorder.

In the *Journal Complémentaire des Sciences Medicales*, for November, 1818, there is an interesting paper by M. Boyer, one of the most distinguished surgeons in Paris, on a painful affection of the rectum. We had partly prepared an analysis of this paper, when we observed that Mr. White had given a translation of the greater part of it; we shall, therefore, take this opportunity of introducing the substance of it to our readers.

M. Boyer observes, that we may in vain search the ancients for a description of this disease, which he terms a *flaw* or *fissure*, (*gerçure*,) accompanied by spasmodic obstruction of the fundament. Lemonnier appears to have been the first who took notice of this disease, in the year 1689, in the following words:—

“ ‘ These flaws, or fissures, are small painful ulcers, lancing and without swelling—which follow longitudinally the wrinkles of the fundament, and which very much resemble those chaps or cracks which the cold produces on the lips and hands during winter—they are sometimes occasioned by the induration of the fæces, which becoming accumulated in a great quantity in the rectum, and afterward evacuated, these through their excessive dryness and heat excoriate, or split the sphincter and the anus in passing away.’ ”

“ The author thinks that these fissures also may depend on dysentery, or venereal virus. He says they are superficial or deep, exterior or interior, tractable or malignant. In conclusion he proposes for their cure, the same means which are employed for other parts, namely, oils and fat combined with different vegetable and mineral substances.” 19.

The species of fissure, however, which M. Boyer treats of, does not depend on any of the above-mentioned causes—nor is it, he thinks, a disease of rare occurrence; having met with more than fifty cases of it in his own practice. Adults are almost exclusively the subjects of this complaint; he having never seen it in children or very young persons.

“ ‘ No class of society appears to be exempt from it; both sexes are equally exposed to it; but women perhaps are more frequently attacked than men. The characteristic symptom of fissure is a fixed pain in one point in the circumference of the anus. This pain is always more acute during the alvine evacuations—it decreases, by

little and little, between the intervals of evacuation. The sphincter of the anus is so contracted that the introduction of a finger, a candle, or a canula, is very difficult and excessively painful." 20.

The causes of this affection are obscure. It was generally found to have been preceded by hæmorrhoidal complaints.

"The complaint begins in an insensible manner : the defection of the *fecal* matter is accompanied with heat and smarting.—Some hours after the evacuation every troublesome sensation ceases ; a patient thinks he has the piles, or that the parts are inflamed.— Sometimes these symptoms go off in the course of a few days, particularly if he abstains from heating drinks, uses clysters, and frequent ablution with cold water. But in a short time the heat and smarting reappear ; the expulsion of the *feces* becomes more torturing, and the uneasiness it leaves lasts a longer time ; the stools are a little tinged with blood ; the pains increase ; the laxative drinks to which we then usually resort, the clysters, and the cooling regimen, afford a little relief. These means however cease to take effect ; and in spite of their adoption, the disease continues its progress. Some patients are obliged to take a purgative medicine every forty-eight hours, and three or four clysters a day, to procure a stool ; in other cases to use injection for hours together, till an evacuation takes place. If they remain many days without going to stool, the pains that they in the end experience in going, are still more excruciating—and they compare them to what a burning iron introduced into the rectum would produce. Some patients are then attacked with a sort of general convulsive catching, or fall into a swoon. There remains, after the evacuation, not only an acute pain, but prickings and throbbings, like those which are produced in an inflamed part. I have seen a woman in whom a febrile exacerbation succeeded every stool." 21.

The pains do not augment in an equal and progressive manner in this disease. They increase and diminish at intervals—often in consequence of certain circumstances, as violent exercise, vinous or spirituous potations, heating aliments, too much food. Indeed the influence of diet is so manifest in this complaint, that some patients have a horror of taking food. In some women, our author observes, the pains increased at the time of the menstrual discharge. In one case there was a regular hebdomadal exacerbation of the pain. Some patients cannot get ease from it without walking about.* He has known a man who, from this last cir-

* The writer of this article suffered from this complaint more than two years, and could not make out the nature of it till he read M. Boyer's paper. He could get no ease after a motion, until he had walked a couple of miles.

cumstance, was obliged to change his trade, and enter on a business where he had less sedentary employment.

“ ‘ The pain which accompanies and that which follows the alvine excretion, is generally in proportion to the volume and hardness of the fæces. The more bulky contents are arrested by the constriction of the sphincter, and when they descend to the anus, they excite efforts excruciating, tedious, and useless, till they are softened by injections and the mucus secreted by the rectum. Even the evacuation of fæces, though of but little consistence, does not take place without pain. I have known a patient who experienced very acute pain, although he had a diarrhœa. Besides this, the passing of wind is also sometimes painful, difficult, or impossible. I cured a woman who, tormented with the desire, and (at the same time) impossibility of passing the wind collected in the intestines, was reduced to the painful inconvenience of keeping a probe, made of elastic gum, in the rectum.’ ” 23.

When the disease has lasted beyond a certain time, constitutional symptoms ensue, as emaciation, extreme nervous susceptibility, sometimes hypochondriasis—at others, retention of urine. The following were the appearances discovered by ocular and manual examination.

“ ‘ Externally, nothing remarkable is to be seen. In some patients I have noticed hæmorrhoidal tumours; in others little pimples, which have always appeared to me, as well as the hæmorrhoids, to have no connexion with the fissure; in two or three only I have seen a slight discharge, which I believe equally foreign to that affection.

“ ‘ In some cases, we may perceive in that point of the circumference of the anus where the patient feels pain, (it is commonly to the right or left,) we may perceive, I say, the lower extremity of the fissure; but in general we do not get a sight of it, without pressing on the opposite sides of the nates, and separating the orifice of the rectum a little: in some patients no endeavour will make it visible.

“ ‘ The fore-finger does not penetrate into the rectum without difficulty; its introduction is always very painful; the pain is intolerable if we press forcibly on the fissure, and the patient throws himself forward to escape from the torment he suffers.

“ ‘ The finger feels a remarkable constriction, tight, and continued: this constriction is one of the characteristic signs of the complaint. We perceive upon the mucous membrane of the intestine, no swelling nor hardness. Sometimes we remark, at a particular point, a depression elongated and parallel to the length of the intestines; at other times we only recognise the place which the fissure occupies, on account of the pain which the pressure we employ occasions on that part.” 24.

This fissure, M. Boyer observes, is constantly accompanied by spasmodic constriction of the sphincters, although

the constriction sometimes exists without fissure. The constriction with fissure is oftener observable than the constriction without fissure. Whether there be one, or both in conjunction, the symptoms are precisely the same, and they require the same treatment. M. Boyer believes the disease to be sometimes congenital—at least he has seen two persons in whom it commenced apparently with their existence. The fluidity and softness of the fecal matter, in the early periods of life, render their expulsion easy, or more supportable; but in proportion as the patient advances in age, the alvine excretion becomes denser, and the pains of the anus more acute during and after each evacuation, which time renders progressively more difficult.

Among most of the patients who had been under M. Boyer's care, nothing but palliative means had been employed, and these often failed to give any relief.

“ ‘ Among these means, some had for their aim the diminution of the consistence of the alvine contents; others, to allay the pain and heat of the fundament, and lessen its sensibility. Thus, they prescribed a cooling regimen, prohibited the use of stimulating diet and heating drinks. Some patients have, of their own accord, reduced their ordinary quantity of food to half, or even less; others have been compelled to the miserable plan of taking an aperient potion every two days. Most have made frequent use of simple or laxative enemas, and they have had recourse to them three or four times a day. These means at first procured some relief, but after a time they became useless, and scarcely produced a momentary alleviation. Fumigations of hot water; decoction of chervil or infusion of elder; cold effusion, general bathing, the hip-bath, the application of leeches, narcotic injections, suppositories, and opiate pastes, have sometimes rendered the pain more tolerable, but they have been always insufficient to the cure of the disorder, and often even to diminish suffering; however, I have once cured by some of these means a fissure of the anus, with slight constriction. The mode of treatment was long, and followed up with perseverance: I have obtained good effects from a pomade composed of hogslard, juice of house-leak, juice of nightshade, oil of sweet almonds—of each ʒiv .

“ ‘ In most of these complaints which I have treated, I have employed these remedies before I proceeded to more powerful means.

“ ‘ Many of these patients have made use of bougies to dilate the orifice of the rectum, but instead of diminishing the constriction they have often had a contrary effect, the irritation caused by their pressure has sometimes increased the constriction of the sphincter to such a degree, that before long, the smallest candles, even a clyster-pipe could not overcome it; at other times without augmenting the constriction, the candles have so aggravated the pain, that the patients have not been able to bear it, have with-

drawn them a few moments after they were introduced. In no case have I observed any good effects resulting from this plan ; it has been always useless or pernicious.' " 29.

Baffled in general by all means of treatment, M. Boyer conceived a hope that the fissure might be remedied by converting it, by a simple incision, into a simple wound. He therefore operated, and his success exceeded his most sanguine expectations. The agonizing pains disappeared, and even the expulsion of the fæces over a raw surface was not by any means so painful as before. The fissure disappeared—the constriction ceased, and this result prompted him to try the same operation for spasmodic constriction without fissure, and the same success ensued.

" At a later period, having met with patients in whom the fissure occupied the anterior, or posterior part of the anus ; parts on which a cutting instrument could not be used without inconvenience ; I determined on making a lateral incision, without taking notice of the fissure, which has always disappeared of itself after the operation.

" At last, experience has taught me that in a case of considerable constriction, one incision only is not sufficient, and that it is necessary to make two, one to the right and the other to the left, either at the same time or successively ; either at a longer or shorter period as may be necessary." 30.

As a preparative for the operation the patient takes, three days previously, a mild purgative, and on the day of the operation a laxative enema is thrown up. The steps of the operation we shall give in Mr. White's translation.

" I make the patient lie upon his side, as for the operation for fistula in ano ; I carry the fore-finger of my left-hand, anointed with cerate, into the rectum, and upon my finger I make a bistoury glide on its flat side, the blade of which is very narrow, square at the end, and the extremity rounded off. The edge of the bistoury is then directed towards the right or left side, according to the place which the fissure occupies, and with one incision I divide the intestinal membranes, the sphincters, the cellular tissue, and the integuments of the nates. I thus form a triangular wound, the top of which reaches to the intestine, and the base to the skin ; it is sometimes necessary to elongate this, I do this with a second cut of the bistoury. In some cases the intestine slips away from the edge of the instrument, and the wound of the cellular tissue extends higher than that of the intestine ; we must then introduce the bistoury a second time into the rectum to lengthen the incision of the intestine, or complete it with the blunt pointed scissors.

" When the constriction is great, I make two similar incisions, one to the right and the other to the left ; and when the fissure is situated before or behind, I do not comprehend it in the incision.

" We introduce immediately into the wound, or the two wounds,

a large bougie, which prevents the edges of the incised parts from reuniting in an irregular manner. We plug it up slightly with lint, apply a number of pretty long compresses, and the whole is supported by a baudage, like that which is used for fistula in ano. It is seldom that hæmorrhage supervenes, a slight compression is always sufficient to stop it. We do not remove the first dressing for three or four days, and afterward dress it every day till the cicatrix is entirely formed; this is generally a month or six weeks, in some circumstances the cicatrization has not taken place till after the second month, or in the course of the third; but at other times, also, in twenty days—once only in fifteen.

“All the patients in whom I have performed this operation, have been cured radically, completely, and without return of the pain of the fissure, or the constriction.” 32.

In Mr. White's experience, these spasmodic constrictions of the anus have been generally connected with stricture higher up the rectum. The great irritability of the sphincter will not permit the use of common hard bougies, but the soft bougie used by Mr. White has generally succeeded when employed with caution, and persevered in with courage and patience. Two cases, however, have lately occurred to Mr. White, where the bougie failed, and he was obliged to have recourse to division of the sphincter.

For Mr. White's judicious observations on hæmorrhoidal and other tumours about the rectum—and also for a collection of interesting cases, some of them before published by himself and others, we must refer to the volume itself.

VII.

A Treatise on the Nature and Treatment of Scrofula, &c.

By EUSEBIUS ARTHUR, LLOYD, &c.

[Second Analytical Article, concluded from page 174 of this Volume.]

In our first analytical article we were unable to comprehend the important subjects of osseous, articular, and visceral scrofula; to these, therefore, we now proceed.

1. *Osseous Scrofula.* Mr. Lloyd observes, that bones are liable not only to inflammation and all its consequences, in common with other parts, but also to *specific diseases*, where a disposing state of constitution exists—for instance, syphilis and scrofula. Each of these last diseases, however, appears to have a favourite osseous seat—thus syphilis attacks

the more hard and compact bones, seldom invading the cancellous structure and joints. Scrofula, on the other hand, usually affects the softer and more spongy bony structures, as the heads of the cylindrical bones, the bones of the carpi, tarsi, and vertebræ. The cancellous structure is, also, involved in scrofulous disorganization, as many preparations in Mr. Langstaff's museum testify.

The true scrofulous disease of bone, Mr. L. thinks, always commences in the cellular or cancellous structure—the vascularity being merely increased at first, then the whole texture becomes altered, the earthy matter absorbed, the bone softer than in health. Subsequently, the cancellous structure itself becomes absorbed—the cancelli are filled with a yellow caseous matter, or transparent yellow fluid. How long the bones may remain in this incipient state of disease, it is difficult to say; but the next effect appears to be a thickening and swelling of the external parts, from a deposition of gelatinous fluid into the cellular substance, and round the tendons and ligaments of the joint. Although this thickening often goes to a great extent, and continues long in an indolent state, yet the true character is at length developed, and more active inflammation comes on. The cartilages ulcerate or are absorbed—the synovial membrane inflames—matter forms—and the whole joint becomes included in the disease. In scrofula, of whatever structure, the vascularity, our author thinks, is at first increased, but ultimately diminished, as is proved by injecting parts in the incipient and more advanced stages of the disease. Mr. Lloyd combats the idea, that the morbid alteration of structure in scrofulous bones is the product of an inflammatory process going forward in all stages of the complaint.

"I may observe here," says he, "that it is a great mistake to consider the scrofulous matter, such as is found in the bones, the glands, or what scrofulous tubercles are formed of, as a new growth, or as a species of tumour, for really it is a mere secretion or deposition of unorganized matter. Its being a secretion too, is an argument against an inflammatory state of the bone continuing after the deposition has taken place, for the common and invariable effect of inflammation, is to put a stop to all secretion in whatever part it attacks, as we often witness in the liver, kidneys, and many other parts of the body, and the secretion comes on, or is restored, only as the inflammation subsides." 125.

There is some loose and some erroneous reasoning in the foregoing passage. Although we are not disposed to deny, that the scrofulous matter may be a secretion, yet we do not agree with Mr. Lloyd, that inflammation cannot have any share in this process. Does inflammation of the mucous

membrane of the nose, trachea, urethra, &c. check secretion there?—Did Mr. Lloyd ever open a patient that died of peritoneal inflammation, and find these evidences of checked secretion? In fact, there is not a more common morbid phenomenon, than increase and depravation of secretion, during an inflammatory process in a structure. In some of the larger glandular organs, indeed, as the kidneys, liver, &c. we know that a *high range* of inflammation is incompatible with secretion; but we are much inclined to think, that lower grades of the same disease, and particularly that state called *irritation*, very frequently increases and deteriorates the secreting functions even of those large viscera.

The ulceration of the cartilages of joints, Mr. Lloyd observes, appears clearly to depend on the diseased state of the bone, or on inflammation of the synovial membrane, rather than on any morbid condition of the cartilage itself. How rapidly the cartilages will sometimes ulcerate, when the synovial membrane is inflamed, every surgeon conversant with the morbid anatomy of the joints, well knows. When an abscess forms in the bone itself, the matter sometimes makes its way through the cartilage into the cavity of the joint, occasioning very severe symptoms. At other times, the matter makes its way to the surface below the cartilage and the attachment of the capsule, so that the cartilage remains entire. Under these circumstances, abscesses may form in the surrounding parts, as when the whole joint is diseased. Our author denies that necrosis and spina ventosa can ever be the consequence of scrofula, though he has heard a public lecturer assert that they are. Scrofula, he remarks, comes on gradually, and without pain or acute inflammation; while on the contrary, necrosis comes on suddenly and rapidly, and is often attended with most violent pain and acute inflammation. In scrofula there is a continual absorption of bony matter, while, in necrosis, the original bone being dead, there is an immediate, and often an excessive deposition of new bone. Spina ventosa, in its modern acceptation, cannot, he thinks, be considered as scrofulous, though, in former times it might, as it then included all diseases of the bones commencing in their interior.

Like other diseases dependent on a scrofulous diathesis, the affection of the bone seldom occurs, except in early life—although there is no period entirely exempt from the disease where the scrofulous diathesis is strong. From our author's diagnostic or distinctive symptoms of the disease, we shall cull the following particulars.

In the early stage, when there is simply absorption of the earth, and a morbid deposition in the cancelli of the bone,

the change takes place so insidiously and imperceptibly, that it is next to impossible to detect it. If there be any symptom produced, it is merely a sense of slight weakness in the part, which is generally attributed to constitutional debility. The first decided symptom of disease going on in the articulating extremities of a bone, is an occasional deep-seated, dull, heavy pain unattended by swelling, and not increased by motion; but if it be the hip, knee, or ankle joint, which is affected, the pain is somewhat increased by the compression of long standing or walking. This state often continues for many months; but generally the pain gradually increases—after exercise the joint swells, but subsides at night—at length the soft parts swell permanently, but not extending to the whole joint as in other diseases. In the knee it often commences on either side, just behind the condyles, so that the joint appears wider, and more spread out than it naturally is—the swelling gradually increasing and affecting the whole joint, feeling elastic, but at the same time firm, as if the heads of the bones were enlarged. The superincumbent skin is tense, smooth, and transparent, displaying conspicuously some large blue veins on the surface. Even in this stage, though there is more pain than in the first, yet, except occasionally, it is rather a continual uneasiness than actual pain of the joint.

As the disease advances the inflammatory condition increases, together with the pain, and a constant feeling of heat in the part. The constitution now sympathizes with the local irritation. An abscess often occurs at this period from an accidental circumstance, in some part of the swelling, which bursts, and continues discharging for a short time, when it heals—the parts sometimes continuing for months, or even for years, without the formation of fresh abscesses.

When, however, the third, or suppurative stage is fairly established, it is very common to have a succession of external abscesses not communicating with the cavity of the joint, which burst and readily heal, or leave sinuses which often continue for a long time to discharge a sero-purulent matter. In the progress of the case, however, the articular cartilages ulcerate, and matter forms in the cavity of the joint—the matter sometimes issuing at a prominent point, but oftener insinuating itself in every direction above and below, and discharging itself at a considerable distance from the joint. It is needless to say, that hectic fever is but too generally established under this state of things.

When the ankle is affected, the swelling generally com-

mences on the anterior part, and is from the first diffused ; it extends to the sole of the foot and metatarsus ; the foot becomes almost round, and is immensely enlarged ; the muscles, from disease, lose their power ; the toes remain motionless, appear smaller than is natural, and pale as if they were dead ; suppuration ensues, and its results are modified by the effects which medicine or the reactions of nature produce. When parts of the fingers and toes are affected, they often suppurate, and exfoliation of bone, to a greater or less extent, succeeds. A joint, in such circumstances, may appear to be ankylosed, and yet its motion be ultimately recovered. When one end or the whole of the phalanx dies and comes away, regeneration never takes place, and the finger or toe is permanently shortened.

The shoulder experiences a less degree of enlargement in scrofula than any other joint ; at first the swelling is most obvious about the coracoid process ; at a later period, the axilla exhibits the greatest fulness. Abscesses are not frequent in its external parts ; and, when matter forms in the articular cavity, it makes its way to the surface from under the posterior margin of the deltoid muscle.

Scrofula of the elbow-joint generally commences at the bottom of the inner condyle of the humerus, or by the swelling of a gland just above that projection. There is always some degree of enlargement between the condyles and olecranon, and at the radial and ulnar connexion ; but the principal tumour is in the bend of the arm, where it is often so considerable as to make the fore-arm, when bent, appear much shortened. The implicated parts are seldom so hard as those of the knee, carpus, and tarsus, when similarly diseased ; they possess some degree of firmness and elasticity ; the skin is pale and shining ; and the superficial veins become dilated.

Mr. Lloyd's manner of accounting for the muscular atrophy of the limb which accompanies many forms of disease in the joints is rational and consistent with the laws of vital action.

"The true explanation," says he, p. 147, "of the wasting of particular muscles is, that their action giving pain in the joint, or at least some uneasiness, they cease to act, and consequently waste away, which every physiologist well knows is an invariable consequence when parts become useless, or their action occasions uneasiness. When the shoulder-joint is diseased, we ought not to be surprised that some muscles of the humerus should waste away in a greater degree than others, as the action of some may, from necessity, have been kept up, while others may not have acted at all ; or the slightest action of some may cause pain, while others may,

and must be able to act to a considerable degree, without exciting the slightest pain. When it is the knee or hip-joint that is affected, it is common, in the advanced stage, for the limb to become œdematous."

It is a mistake to say that bones *cannot* become enlarged unless by *external* deposition: there are several preparations in existence which prove that they may be actually expanded by *interstitial* deposition.

Treatment. The constitutional treatment of the scrofulous habit, and of the disorder of health consequent on it, has already been described. It is here to be employed with assiduity and circumspection. So long as the vital actions remain unimproved, the local treatment should not embrace more objects than these—avoiding all sources of pain, irritation, and inflammatory excitement; securing to the affected member the greatest degree of rest possible; and such like palliative measures. When the shoulder-joint is the seat of scrofulous lesions, the arm must be supported by a sling, fastened to the patient's side, so as to prevent motion by elevation and depression. When the elbow or wrist-joint is diseased, it will be sufficient to keep the whole forearm in a state of semiflexion, suspended in a sling to which a splint has been adapted. In this affection of the wrist an external splint is not requisite; but it is of great importance to keep the fingers in a proper degree of flexure. When the knee is diseased, the limb should be kept perfectly straight and steady, either by two short splints, one on each side, extending a few inches above and below the joint, or by one long splint reaching from the trochanter major to the foot; the patient, at the same time, being confined to bed. When the ankle-joint or foot is the part affected, confinement to bed and the use of a splint are indispensable. In such cases the outer splint used for a fractured leg answers every purpose.

When it is applicable, moderate exercise should be enjoined. Inflammation and its sequences may be obviated by the judicious employment of leeches; abscesses are to be opened with the lancet; when swelling and sinuses remain, and are not accompanied with irritation, setons and issues are sometimes efficacious in removing them; when there are no open sinuses, blisters or friction with tartar-emetic ointment and moderate compression with proper bandages, will be profitable.

With the detail of eighteen cases illustrative of these practical doctrines, Mr. L. concludes this very interesting section. They are highly instructive; but our limits forbid our transcribing more than one: it is a case of scrofulous shoulder-joint.

"A boy, nine years of age, was, three years before Mr. L. saw him, attacked with slight occasional pain in his right shoulder, attended with weakness and an indisposition to use it. He was, at the same time, in a very delicate state of health, had costive bowels, and very bad appetite, and was also affected with scrofulous ophthalmia. There was not much difference between the size of the two limbs, but the muscles about the humerus and scapula appeared to have somewhat wasted away, and were very flaccid. The patient was now taken to one of the most celebrated London surgeons, who considered it a case of paralysis, and consequently ordered it to be moved about as much as possible, and to be electrified twice a week : at the same time he prescribed for him some tonics. This plan of treatment was persisted in for nearly three months, but then, as the child was much worse in every respect, he was taken to another surgeon, who ordered the arm to be kept in a sling, yet at the same time the whole limb to be well rubbed, night and morning, and tonic medicines to be continued. He persisted in this treatment for several months, as the constant rest rendered the pain in the arm much less severe than it had been while he was pursuing the former plan of treatment. However, as there was no evident amendment in the disease, and as the joint was observed to swell, he now became a patient of mine.

"At this time, the head of the humerus appeared enlarged, and the edge of the glenoid cavity thickened, as did the coracoid process of the scapula. All the muscles arising from the scapula, and attached to the humerus, and indeed all the muscles connected with that bone, had very much diminished in size ; but least of all the deltoid. There were apparently very few fibres of the biceps remaining, but these were sufficiently strong to bend the fore-arm with considerable force. Among the other muscles connected with the humerus were the latissimus dorsi and pectoralis major.

"There was considerable motion remaining in the joint, as the arm might be rotated and elevated to a certain degree, but beyond that all motion was performed by the elevation or depression of the scapula on the trunk. The muscles of the fore-arm remained of their natural size, and retained their usual power, as the right-hand could be kept firmly clenched for as long a period as the left. The pain in the joint was not severe, and but slightly aggravated by motion, except where an attempt was made to move the humerus beyond the contracted sphere that has been described before, the pain however was generally worse during the night than in the day. His general health was very bad ; he was very weak ; his appetite was very indifferent ; his tongue was white and furred ; his bowels were costive, and his pulse seldom less than ninety. From the whole state of the case, I pronounced the disease a scrofulous affection of the shoulder-joint, and consequently ordered the arm to be constantly supported in a sling, and kept perfectly quiet, and a bread and water poultice to be applied all over the joint. I also ordered half a grain of calomel, and five grains of rhubarb, to be taken every

other night, with an occasional purge, and the greatest attention to be paid to the diet, according to the rules I have previously laid down.

"The plan of treatment, with very little variation, was pursued for a space of two years, when the disease might be considered as recovered from. There were, however, some slight variations made in the treatment, though the principles were the same, which will be noticed presently. For a considerable period, the joint appeared completely ankylosed, but subsequently it became evident that the bones had not united, and the sphere of motion has gradually increased. The os humeri of this arm was above an inch shorter than the other, and its head, though completely in its natural situation, was considerably reduced in size, being much less than it naturally should be. The glenoid cavity, however, was not destroyed, as its eyes were very perceptible from the wasting of the muscles. The appearance of the joint was such, that a superficial observer might have almost believed, if he did not know that the joint had been diseased, that the humerus was dislocated: indeed a surgeon who examined it gave that opinion. Since the motion in the joint began to return, the muscles have also begun to increase in size.

"At one period the soft parts round the joint swelled considerably, and there was a great deal of tenderness. In consequence of this, leeches were occasionally applied, but never more than one or two at a time. Their application in this manner relieved the pain, and did not disorder the general health. After this, when the parts had got into a quiet condition, the surface of the joint was kept for several months in a state of soreness, by applying the tartar emetic ointment every morning; during this time, however, a poultice was applied every night, but in the day the shoulder was covered with flannel to promote external irritation. No other kind of medicine was given during the whole two years than what has been described, and this was continued the whole time: the form, however, was sometimes altered, but more to amuse parents than from any actual necessity. The diet, too, was sometimes varied a little, but the quantity was always regulated as attentively as possible."

SCROFULOUS HIP-JOINT. *Pathology.* The progress of serofula in this joint is so imperceptible that its ravages are often extensive before they are discovered to have commenced. Besides experiencing more or less constitutional derangement, the patient is at first a little lame, and walks on his toe; he complains of being tired much sooner than he would if he were in health. After an uncertain space his lameness increases, and the affected limb is never advanced so far in progression as the other; in some instances it appears to be elongated; in others, shortened; but this entirely depends more on the position of the pelvis with respect to the spine. Lancinating pain is occasionally felt in the joint itself: in other parts of the limb, and particularly in the knee, the femoral and glutæal muscles emaciate: the

thigh becomes evidently smaller; the nates appear widened and flattened: pressure on the joint behind the great trochanter, or in the groin, inflicts acute distress; and the bone around its external tuberosity feels thickened and enlarged. Not unfrequently the inguinal glands sustain scrofulous disorganization, and become the site of large abscesses. The extreme parts around the head of the thigh also undergo the same change, and sooner or later the articular capsule inflaming, suppurates and ulcerates, occasioning great functional derangement, destruction of parts, with excruciating pain. Cheselden relates two cases, in which the matter made its way through the acetabulum into the pelvic space. •

“When matter,” says Mr. L. p. 190, “does form in the cavity of the joint, it is often very suddenly, and it is always attended by a great accession of pain and general disorder. At this period the slightest motion of the joint often produces the most excruciating pain, which however is generally much relieved by the matter finding an exit. When the capsule is distended, there is usually much fulness in the groin and behind the great trochanter, and pressure on these parts occasions very great uneasiness. When matter collects in the articular cavity, from its distance from the surface, and from the thickness, great weight, and pressure of the superincumbent integuments, it often insinuates itself in various directions above and below the joint, before it makes an outlet, and this is frequently at a great distance from the joint, so that the matter cannot be discharged at one time, and other external suppurations take place, to give vent to the extravasated matter. These abscesses seldom close after they have discharged their contents, or, if they do, they soon reopen by fresh suppuration and ulceration; but they generally leave sinuses passing in various directions, yet all ultimately communicating with the joint, from which, there is a yellow serous fluid constantly discharged, and occasionally pieces of complete scrofulous matter, till the original disease in the bone is cured, or death terminates the case.”

Treatment. Having instituted the usual course of general treatment, Mr. Lloyd enjoins the patient's being kept in a state of the most perfect rest; his being constantly confined to bed, and always lying in a horizontal position; his being incessantly retained in a straight posture with the trunk of the body prevented from inclining to either side, and having the heels placed as near as possible in the same line. He dissuades us from having recourse to local abstractions of blood by means of cupping-glasses or leeches, but acknowledges his having found counter-irritants to be sometimes very efficacious in preventing the formation of abscesses.

“Various modes of making counter-irritation,” says he, p. 197, “have been proposed, such as the actual cautery, burning with moxa, issues, setons, scarifications, perpetual blisters, tartar-emeti-

ointment, &c. and most of them, no doubt, are sufficient to produce the necessary irritation. Issues, however, or the keeping a part of the external surface of the joint irritated and discharging with the tartar-emetic ointment, I prefer. At the same time that these means are adopted, I have observed, that the efficacy of the treatment is much increased by enveloping the joint in a bread and water poultice. If an issue be decided upon, the preferable place for making it is just behind the great trochanter. If, after the issue is established, there is still a great deal of pain remaining, Mr. Crowther recommends the insertion of a seton in the groin; and it may be a useful practice; but in none of the cases I have met with has it been necessary. I fully believe, that when counter-irritation is made in a judicious manner, at an early period of the disease, and if rest and proper constitutional treatment be employed, at the same time, we shall very seldom be troubled by the formation of abscesses, and, consequently, our patients will recover in a much shorter time. Nothing, however, can be more uncertain than the period of recovery, for we sometimes see cases, which, at first, have a most threatening appearance, recover in a few months; while, at other times, we see cases, that at first were not half so severe, almost as many years in recovery."

When a person, having diseased hip-joint, is first allowed to walk, he ought to use crutches, and be careful to save the affected limb. If ankylosis has taken place, which, however, seldom happens to scrofulous joints, such precautions will be less necessary. Mr. Lloyd has invented a splint which effectually obviates all motion of the joint, and restrains the undue actions of its muscles. It consists of a spring, which is firmly attached to the pelvis above the trochanter major, and to it is fixed a long splint, which is applied to the limb in the ordinary manner with or without an inner and outer short splint. It occasions no pressure that can possibly be injurious, nor does it create the least uneasiness. This section is concluded with several important cases, which we regret our limits oblige us to exclude.

SCROFULOUS SPINE. Two kinds of spinal curvature—*angular* and *lateral*—depend on scrofulous disease. In the former there is always destruction of some portion of the vertebral column, and often, for a considerable time, progressive disorganization of bone, cartilage and ligaments: in the latter no destruction of parts, but merely an alteration of structure takes place. The vascularity of the bones, however, is increased; their earth is absorbed, and they become softer than natural. The ligaments also undergo some morbid changes, the connexions between the different bones are loosened and relaxed. When the curvature has existed long, the vertebral cancelli receive the scrofulous deposition, and

ultimately, if the defect of constitution be not repaired, sustain the ravages of carious decay.

Angular Curvature. This generally occurs in the upper part of the dorsal vertebræ, but it may take place in any portion of the spine. It can never exist, even in the smallest degree, without some destruction of bone, which is necessarily a source of unabating irritation, and disturbance of the general health. It occasions a positive projection from the natural surface of the back. When two or three of the vertebræ are almost completely destroyed, and the adjoining ones sound, the projection is very direct. The angular is sometimes complicated with lateral curvature of the spine. The effects of this condition of the vertebræ are—communication of diseased actions to, or excitement of irritation in the spinal marrow and nerves connected with it; and the production of inflammatory manifestations, and abscesses in the contiguous soft parts.

Diseased action thus imparted to the spinal chord and the nerves is generally characterized by—constant and local pain, which is sometimes diffusive; paralysis, more or less, of the lower extremities, or of the vesical or anal sphincters; diminished power in the coats of the intestines and bladder; sense of sinking at the stomach; respiration slower than natural, with occasional interruptions; intermitting pulse; and wasting and flaccidity of the muscles of the extremities. Mere irritation about the medulla spinalis, or the origin of the spinal nerves, is distinguished by—diminished power in the lower extremities, accompanied by convulsive twitchings and irregular actions of some of the muscles, and sometimes with rigid spasmodic contractions of them; so that the foot and toes are drawn downwards, and the legs upwards and backwards, and immovably bent on the thighs, together with a feeling of great tightness or constriction round the ankles; sense of coldness and shooting pains, with wasting of the muscles of these parts; lancinating pains in the chest; sense of tightness and uneasiness at the pit of the stomach; hurried respiration, with occasional convulsive actions of the diaphragm; quick agitated pulse; and all the symptoms of general debility and irritation.

Paralysis, in these cases, according to Mr. L. is not occasioned by any pressure of the diseased bones, but by the accumulation of lymph or matter in the spinal canal, or of some kind of fluid in the membranes of the spinal marrow.

“When abscesses form in these cases,” he goes on to say, p. 228, “they generally originate in the soft parts interiorly, or about the anterior surfaces of the vertebræ, but sometimes in the

external parts about the spinous processes. There frequently is no evidence by which it can be ascertained that the suppurative process is going on, until the matter makes its way to the surface of the body, and forms what is termed an abscess. The point at which it may at first appear is quite uncertain, and it often is at a great distance from the seat of the primary disease. When the seat of the disease is in any of the lumbar or in any of the lower dorsal vertebræ, it is most common for the matter to first appear in one of the groins, either above or below Poupart's ligament, but there is no certain spot, and the matter often makes its way to the surface in the loins on one side of the lumbar vertebræ, sometimes by the side of, or above the anus, and indeed in various other situations. These abscesses generally go by the name of lumbar or psoas abscess. Nevertheless, the cause of their formation sometimes has no connexion with the lumbar vertebræ, as I have known this part of the spine perfectly sound, and the whole disease in the dorsal vertebræ. The nature of these abscesses is always readily discovered, as by applying the hand to the most prominent part. While the patient coughs, propulsion of the matter from within outwards is very distinctly felt. The quantity of matter that these abscesses contain is often enormous. I have seen five pints discharged at one time, and the discharge of two or three pints is very common.⁷⁷

When from disease high up in the vertebræ, an abscess forms in the posterior mediastinum, great danger is to be apprehended. The matter may insinuate itself in every direction, separate the pleuræ, produce ulceration of the diaphragm and peritoneum, and be diffused among the intestines, or the peritoneum remaining entire, it may detach that membrane from the diaphragm, and penetrate between the different layers of its processes, and by exciting peritoneal inflammation, accelerate the sufferer's death. Scrofulous matter, when confined to the mediastinum, and pressing on the lungs, causes very distressing difficulty of breathing. At last, it is discharged into the cavity of the thorax, and occasions a miserable death; or it makes its way externally, by ulceration on one side of the vertebræ, and is continually issuing through the aperture. Sometimes, after such abscesses have burst, the matter, when the patient coughs, will be propelled in a full stream to a considerable distance.

Lateral Curvature. This kind of spinal curvature depends, in most instances, on that particular alteration of structure in the vertebræ which is produced by scrofula in all other bones. Many authors refer its cause to the action of the muscles. Mr. L. allows that this may be the immediate, but not the primary cause, which he regards as proceeding from the state of the vertebræ themselves. When the disposition to the disease is formed, and scrofulous

action has commenced in these bones, it increases their vascularity and softens their texture, relaxes their ligaments, loosens their connexions, induces atrophy of certain muscles, and weakens the spine; and, by the disbalancement of muscular function thus determined, irregular actions take place in the parts, and curvature ensues.

"If we have proof," adds Mr. Lloyd, "as I maintain we have, or if it be admitted that this state of the vertebræ exists, it is undeniable that the other symptoms or effects are what we would naturally expect to follow, for they are precisely what we witness in every other part of the body—that when a muscle ceases to be useful, or its action gives pain, it ceases to act at all, except when unnatural actions are produced, as spasms or convulsions."

According to Mr. L. the symptoms which often attend this affection of the spine clearly indicate that there is some other cause of local irritation than the mere curvature. They are sometimes as severe as those of the angular kind, and evidently arise from irritation of the spinal column and its nerves. Such cases are occasionally characterized by severe pain in the back; total or partial paralysis of the lower extremities; shooting pains along the intercostal nerves, and those of the lower limbs; twitching of the muscles; difficult or hurried respiration; paroxysmal convulsions of the diaphragm; involuntary discharge of fæces and urine. More frequently, however, the common symptoms are those of genuine debility, pain in the back and head, with other indications of nervousness and broken health.

"That these symptoms," says Mr. L. p. 238, "are not produced by the curvature is certain, because in this affection, as in the angular curvature, all the symptoms of irritation may be removed, although the curvature remains as great as ever; but that they are produced by a morbid condition of the vertebræ, is at least probable, because, as the peculiar state of health which I maintain always precedes and attends such a morbid affection of the bones is removed, and, of course, at the same time, the disease in the vertebræ, all symptoms of irritation subside, so that the patient may continue for many years after, free from all inconvenience but what arises from his lamentable deformity."

There is much irregularity and uncertainty in the general symptoms which announce impending curvature of the spine, but, according to Mr. Lloyd's experience, there is a local symptom that invariably precedes its development. This is the *wasting of the muscles of the back*. It is commonly evinced in children by their stooping or bending their head more forward than is natural; or, when sitting, by their always raising their shoulder, and keeping their bodies

bent forward ; or by their constantly sitting or standing with one shoulder elevated above the other ; or by their always lolling or leaning, when sitting down. The spinous processes, under such circumstances, are unusually prominent, and there is a deep depression on each side of them. This is more considerable on one side than the other, and is occasioned by the great and particular wasting of the muscles of the spine. Angular curvature in the slightest degree is detected immediately if it exists. In the lateral, the earliest symptoms are an alteration in the relative height of the shoulders and of the hips ; a corresponding change in the shape of the chest, the spine taking on the form of an italic S, and the projection of one of the blade-bones, farther from the trunk than the other, partly owing to the thoracic deformity, but much more to a species of paralysis, or relaxation of the scapular muscles.

Treatment.—The constitutional treatment of spinal curvature differs in no respect from that of scrofula in any of its forms. Among other local means the importance of rest and a reclining posture cannot be too impressively enjoined. It will secure the diseased parts from the irritation necessarily consequent on all muscular movements : it will preserve the body in an erect state, or support the parts superior to those vertebræ in which the destructive process is going on : it will contribute to avert deformity, and to diminish all those secondary effects so commonly attendant on this morbid condition. When the sick are permitted to escape this confinement, the duration of which will be determined by existing circumstances, it is advisable that, for some time, the back shall receive a certain degree of support. Mr. L.'s method of accomplishing this purpose will be subsequently described.

Next to quietude and a horizontal posture, is the adoption of some method by which counter-irritation near the part affected, and with as little disturbance to the patient as possible, can be unremittingly maintained. Issues or setons will accomplish this purpose ; Mr. L. prefers the former, with the object of preventing irritation from being excited in the contiguous parts, or removing it if it already exists. He does not expect them to remove vertebral caries, or to induce reproduction of bone ; these ends can only be gained by amendment of the general health.

When there is abscess in any way connected with the spine, he instantly establishes an issue on the side of the vertebra, opposite to that where the matter issues. He believes it is better to delay opening lumbar abscesses as long as practicable, for when the collection of matter is very great, it is often

wholly absorbed. His mode of evacuating them is according to Mr. Abernethy's directions. A series of appropriate cases is adduced in confirmation of these practical rules ; but we can only tell the reader they are excellent, and proceed.

For the amelioration or removal of lateral curvature, Mr. Lloyd recommends—attention to the general health ; the reclining posture ; issues, setons, perpetual blisters, and frictions with the tartar-emetic ointment, and stimulating liniments ; and the patients being clothed from head to foot in flannel.

"When the curvature is great," says he, p. 261, "or there is indication of much disease, it is always of the utmost importance to keep the patient continually lying down, day and night ; and, as it is very common for the vertebræ of the neck to partake of the affection of the rest of the spine, and for the head to be permanently drawn more forward to one side, it is equally important in placing the patient in an horizontal position, to keep the head in the same line with the rest of the body and on the same level ; and for this reason, it is necessary for the patient always to lie without any pillow or bolster. If these points be not attended to, it will be in vain to attempt to remove the deformity, for without such attention, it will be impossible to preserve the muscles in that state of complete inaction which is essential to perfect recovery ; or if the head be elevated above the level of the trunk, it will always be found, during sleep, more or less turned to that side, which must necessarily increase the deformity.

"To give the necessary support to the back when sitting down, it is very requisite to have a small chair, with a kind of crutch attached to each side of the chair, which shall press in the most gentle manner against the ribs in the axilla, the arms of course hanging over them. It is necessary too, for the crutches to be made, so that they can be elevated or depressed at pleasure, as it is sometimes, though but seldom, desirable to have one side more elevated than the other. The heads of the crutches too, should be made to turn round, so that if necessary, they may be applied as an equivalent to a back-board, or keep the shoulders back.

"When it is determined that a patient shall make use of exercise, I have invented an apparatus which affords the necessary support to the spine. Crutches, such as have been already described, should be used ; but as there is no chair to rest them on, they are to be fixed to two pads, one above each hip, which must be confined to their situation by a slight spring behind, and by a soft leather strap before. These crutches are so constructed, they can be easily lengthened or shortened. They may be applied under the common dress without inconvenience, or they may be applied over it, in a great-coat or a cloak worn with them. When the vertebræ of the neck are affected, it becomes necessary to support the head. The apparatus that I consider the best for this purpose, is constructed on the principle of the old steel collars, which are

supported on a pad to some part of the back, and connected to the crutches which support the spine. To the brim of the collar a lunated portion of steel is attached, behind and before, to each of which there is a strap, the one for the back of the head to rest on, the other to support the chin."

Several important cases are detailed by Mr. L. illustrative of this mode of treating lateral curvature. We transcribe one, p. 278, which is marked by interesting character.

"A young woman of fair complexion, with light hair and eyes, was first attacked when about 17 years old. At this time there were no symptoms of nervous irritation, and all that was observed was that the right shoulder grew out, and was considerably higher than the opposite one. She, however, gradually became weaker and more delicate till she was nineteen years old, when she so completely lost the power, or rather the government of her legs, that she was unable to walk. She was also, as her mother informed me, extremely hysterical. She had been under the care of several medical men, some of whom treated her complaint as hysterical, and others as rheumatic, and the true nature of her disease had not been at all suspected, nor had it at the period I first saw her, although, with the other very marked symptoms of spinal disease, she had had for nearly a twelvemonth incontinence of urine. When I was consulted about her, it was nearly four years after it was first observed that her shoulder grew out. I found her in the most horrible state of nervous irritation it is possible to conceive; her limbs were not paralytic, but they were so convulsively affected that she had no power over them, and if it was attempted to make her stand up, she was immediately drawn forwards with great violence. Her pulse was very quick; and her bowels were obstinately costive, not being open above once or twice a week. Her appetite was tolerably good. She complained of great pain in her loins, and the incontinence of urine still continued. I was also informed that she had frequent fits which were considered as hysterical. That all her symptoms were the effect of spinal irritation, appeared clear to me, and I therefore examined her spine, and found as complete an S as can be well imagined, and the greatest wasting of the muscles of the spine. I consequently ordered her to be immediately cupped on the back, and a large blister to be applied over the same part directly after, and to be kept open. I also directed her to lie constantly on her back except while the blister was dressed, and at those times she was only turned on her side. To guard against her moving in the night, and to keep her legs quiet, her feet were confined to the bottom of the bed. The only medicines that were given her were aperients, to obviate the costive state of her bowels, and occasional doses of ether, in some camphor mixture, to relieve a continual sense of suffocation which she complained of. The good effect of this plan of treatment was almost immediate, as in less than a fortnight all the most violent and distressing symptoms had left her. Her bowels, too, were much more easily acted on: and she could some-

times retain her urine for nearly the whole day. To relate the details of this case, through the year and a half she continued a plain treatment founded on the same principles, would be tedious and uninteresting ; I shall therefore merely add that, at the expiration of that time, she got up quite well, and with her back as straight as ever : notwithstanding, during the first twelve months after, she had occasional attacks of spinal irritation, but they were always relieved by rubbing in a little tartar-emetic ointment. It is worthy to be noticed, that this patient also had a scrofulous affection of the left breast ; but subsequently she became quite well, and has been married for nearly a twelvemonth."

PULMONARY SCROFULA. When the lungs take on diseased action, in a scrofulous state of the constitution, the first change they undergo is the deposition of cheesy matter into their parenchymatous structure. This operation goes on to form masses or tubercles that enlarge in size and increase in number to an indefinite extent. They are contained in cysts, which, according to Mr. L. consist entirely of condensed pulmonary substance. The tubercles themselves are certainly unorganized matter ; for, instead of showing tendency to form vascular connexion with approximating parts, they act on them as extraneous bodies. The cysts, however, preserve vitality to the last, and their vessels can be readily injected. The lungs will often remain for a considerable time in this state, without experiencing any other effect than what arises from the mechanical action of the tubercles on their tubular texture. At last, by a species of slow inflammation, the substance of the lung, to an uncertain extent around the tubercle, becomes gradually consolidated.

" Sometimes," according to Mr. L.'s observation, p. 287, " the lung will undergo this change all round the tubercle, but at other times only on one side. When this alteration has taken place, the bronchia or tubular structure of the lung is obliterated, and its consistence is more like that of the liver than of the lungs. Sometimes, too, the lung gets into this state while the tubercles are of the smallest size ; but when this is the case, they are generally exceedingly numerous. From what I have witnessed in dissection, I am disposed to believe, that even this change of structure may exist for a considerable time, without any further alteration ; and that it may take place in different parts of the lung, and to a very great extent, at the same time. Under these circumstances the tubercles themselves undergo no change ; and after this period, I believe, they are never enlarged ; because, at parts where suppuration has actually come on, and therefore where the disease may be supposed to have existed longest, the tubercles appear rather smaller than larger. At length, however, more active inflam-

mation is set up in the altered part of the lung surrounding the tubercle, suppuration takes place, and the third stage of the disease is established. At this period when suppuration has occurred, the tubercle will sometimes be broken down, and mixed with the common matter, but at other times it will remain entire; and it should be remembered that it is not the tubercle which suppurates, but the surrounding parts. The extent of the suppuration will vary much, but when it is connected with only one tubercle, it will be small, and form what is called a *vomicæ*. When, however, from the proximity or coalescence of several tubercles the consolidated part of the lung is great, it is common to have one large abscess form, but this does not preclude the contemporary formation of several smaller abscesses or *vomicæ*. Dissection seems to prove also, that though *vomicæ* may be at first distinct, several of them may afterward, by enlarging, coalesce and constitute one large abscess. Although this may be the state of the disease in one lung, the opposite one may be in the first state of the disease, or it may even be perfectly free from all morbid affection; and the same observation is sometimes applicable to another lobe of the same lung. It generally, however, happens, that there is a succession of small abscesses, and that while the contents of one are evacuating, another abscess is forming, and that in the same lung there will be tubercles just formed, tubercles with the lung immediately around inflamed and consolidated, and tubercles forming part of the contents of the *vomicæ*. The contents of *vomicæ* generally find their way into the bronchia, and are discharged by coughing; but sometimes there is no exit, as, the suppuration having been imperfect, the surrounding substance of the lung is thickened and consolidated. When a larger abscess forms it may be discharged in the same way; but it occasionally happens, that when it is situated in the upper part of the lungs, it will burst into one of the larger bronchial ramifications, fill the trachea with matter, and produce suffocation, and almost instant death."

From this descriptive view of tuberculous developement in the lungs, which our readers will perceive is different in some respects from that given by Dr. Baillie, and other eminent pathologists, Mr. L. proceeds to sketch the symptoms of this diseased condition. His sketch is sufficiently faithful and perspicuous, but it is defective in delineating nothing more than the progress of tuberculous phthisis, terminating in ulceration and the discharge of purulent fluid from the lungs. We look in vain to find in it a clear diagnostic symptom or class of symptoms, by which we shall be able to ascertain whether this ulceration is the consequence of simple or specific inflammation—whether the expectorated matter is secreted in a scrofulous ulcer, or in an ulcer consequent to any other of the various forms which inflammatory excitement assumes: his words are—

"Although at an early period of the suppurative stage, the appearance of the matter will seldom enable us to judge accurately of the nature of the disease, still, at a more advanced period, it is an unerring index. It is impossible accurately to describe it, but I may observe that it seems as if composed of mucus, pus, and a curdy matter, of a whitish green, or yellow colour. Sometimes it is streaked with blood, but it seldom happens that this is constantly the case."

Mr. L. does not discuss the treatment of pulmonary scrofula, but concludes this branch of his subject with an observation which we should be unwilling to overlook. From the nature of the disease, it appears to him that the only remedy from which there is any chance of deriving much benefit is counter irritation, and that this should be made without producing additional disturbance to the general health. For this purpose he prefers blisters, and advises their being much larger than they are commonly made, which may be done without exciting any constitutional disorder. In regard to the possibility of tubercles being resolved or absorbed he is undecided; but seems inclined to think with Dr. Cullen, "that Nature sometimes resolves and discusses tubercles which have been formed." We consider such a result as being of rare and difficult attainment, but not absolutely impracticable. We have already said as much in another part of this paper.

Cardiac Scrofula. Wiseman relates a case in which a scrofulous swelling, weighing two ounces, was attached to the apex of the heart. Mr. Lloyd met with the disease in a rabbit. In this case, there were three masses of scrofulous matter nearly as large as a pea in the substance of the left ventricle, and one of them projected into its cavity. They exactly resembled pulmonary tubercles, the animal's lungs were studded with tubercles, and several vomices had formed; its kidneys were in a similar state; a hydatid was situated among the flexor muscles of its thigh, and another between the scapula and trunk. They were as large as a hen's egg, and contained numerous smaller ones. The scapular hydatid was at one time taken for an aneurismal tumour. In this case, the heart's action was very violent, extreme emaciation ensued, and the creature had severe fits before it died. We are told by Portal that the heart has been found in a state of suppuration in phthisical and malarial subjects.

HEPATIC SCROFULA. Scrofulous tubercles in the liver are encysted in the same manner as in the lungs, and distinct from the substance of the gland, with which, however, they

appear to be more closely connected. Merat* states that, in most instances, he has found them destitute of a membranous envelope. When affected with scrofula, the surface of the organ is generally smooth; at other times, it is uneven from the projection of tubercles. Hepatic tubercles do not so frequently go into the ulcerative state as those in other parts; but we are taught by Dr. Baillie to believe that they do suppurate. Mr. Lloyd has twice seen abscesses in the liver containing scrofulous matter. By the result of extensive necrotomical research, Portal† is satisfied that multitudes of the young, and many of all ages, perish from the effects of scrofulous engorgement of the liver, we shall epitomize one or two of the important observations by which this doctrine of his is confirmed.

1. "A young man, whose whole person was jaundiced, and neck covered with scrofulous tumours, died in a state of extreme emaciation, after having experienced very severe and frequent colic pains, diarrhoea, nausea, and hectic fever. On dissection, the brain was found uncommonly fine; the lungs adhered to the pleura in different places; their substance was more solid than natural, and the right superior lobe indurated; the liver was greatly enlarged, condensed, and hardened, especially the anterior margin of its left lobe; it weighed nine pounds; tubercles, some of which were as large as a hen's egg, studded its surface; these, like so many knobs, contained substances more or less concrete, whitish, grayish, reddish, some steatomatous, others atheromatous, others melicerous; in the internal structure of the gland were many tubercles, varying from the size of a millet-seed to that of a pullet's egg. The small ones were red as if inflamed; the rest contained a fluid resembling granular whitish pus; in one word, the liver had undergone the same changes as the lungs do in scrofulous phthisis; the chyle duct was much contracted in diameter, and its duodenal extremity compressed by a glandular body, similar to those found in the liver; the mesentery contained several steatomatous concretions; and the bladder was much indurated.

2. "A child, during dentition, became diseased, emaciated, comatose, and died. On its neck had long been a cluster of gangliformed tumours of different sizes; some of these were red, others somewhat softened; the right hypochondrium was tumid, the false ribs elevated, and the liver greatly enlarged; the inferior extremities became cedematous, the rest of the body bloated; the skin squamous and dry.—Serum, in considerable quantity, had been effused into the cerebral ventricles, between the cranium and dura mater, and

* *Dictionnaire des Sciences Médicales*, tome xvi. 1816.

† *Observations sur la Nature et le Traitement des Maladies du Foie.* a Paris, 1813.

into the vertebral canal ; the encephalic textures were unchanged, the lungs and heart healthy ; the liver was exceedingly voluminous, indurated, and covered with tubercles, some of which contained a dense substance resembling coagulated white of an egg ; they were soft and grayish ; the mesenteric glands were distended and full of similar tubercles ; and there was an infinite number of concrete bodies, of the size of a small pea, interspersed between the coats of the stomach and of the intestinal canal.

3. "Madame C. had engorgement of the cervical glands in her youth ; her spine was slightly curved, her constitution feeble, and excessively nervous ; at puberty, her health improved ; she afterward married and had children ; in her thirty-fifth year she suffered from mammary congestion and irregular menstruation ; pains in the uterus ; the os tincæ was found to be engorged ; colic spasms supervened ; the patient became jaundiced and voided red lateritious urine ; she had frequent hiccup, dry cough, copious and constant expectoration of whitish puriform matter ; fever was kindled, with acute pain in the right side ; medicine produced no relief, and the patient died. Inspection of the body exposed incipient cancerous ulceration of the uterus ; the liver, uncommonly enlarged, was full of whitish tubercles, resembling coagulated white of an egg, and contained suppurating ulcers, (*des foyers de suppuration*,) and the left lung was gorged with purulent sanies. There can be no doubt, concludes the venerable reporter, that a scrofulous affection was the cause of this lady's death, and that she expired under a triple malady—uterine cancer, hepatic phthisis, and scrofulous pulmonary consumption."

PANCREATIC SCROFULA. Mr. Lloyd has never seen, in the pancreas, any deposition similar to scrofulous tubercles ; but he met with an instance of pancreatic abscess containing two ounces of fluid, very like what usually results from scrofulous suppuration. Wiseman mentions a case of the same nature, in which the abscess contained a pint of matter. Suppuration of the pancreas is described by Portal, as being frequently so considerable, that its substance (*son tissu*) is almost entirely destroyed. The pus formed under such circumstances, exhales an intolerable fetor, and is sometimes of a greenish colour, sometimes grayish-white. When the purulent secretion is consecutive to scrofulous suppuration, to which the pancreas is as subject as the salivary glands, the fluid is whitish and grumous. Pancreatic abscesses, according to his observation in numerous instances, are contained in a sac, cyst, or membranous envelope, formed of the cellular membrane with which the organ is invested. He found an abscess of this kind distended with two pounds of pus, and he has known others insinuate themselves through the meso-colon and pour their contents into the abdominal cavity. He regards ulceration and cancer of the pancreas as frequently su-

pervening on scrofulous enlargement and scirrhus of that viscus.

SCROFULOUS SPLEEN. Scrofulous tubercles, according to Mr. L. form in this organ in the same manner as in the lungs, but they generally acquire a larger size; sometimes, however, they are numerous, very small, and diffused through the whole gland. Dr. Baillie believes they are much more rarely formed in the spleen, than in the lungs, but they are precisely of the same nature in both.

GASTRIC AND INTESTINAL SCROFULA. We shall pass from what Mr. Lloyd has written on this branch of the subject, and copy Dr. Monro's description of scrofula as it appears in the alimentary canal.

"Scrofula of the alimentary canal is a disease which, though frequent, has not been described with sufficient accuracy. When the stomach and intestines become the seat of scrofula, all the coats of the part affected attain an unnatural thickness. I have seen the coats of the stomach half an inch thick, and instead of being heavier, and harder, and indurated, as from scirrhus, they become softer, and more of a spongy consistence than natural. There is another peculiarity in this organic derangement, which distinguishes it from cancer; it is not limited to the cardia or pylorus, but affects the whole of the stomach; and, instead of being limited to a certain portion of the intestines, affects the whole intestinal canal. Upon making a section of the diseased intestines, we cut through a substance of an uniform consistence, which somewhat resembles the white part of the skin of an orange, through which a great many blood-vessels are distributed. The coats of the diseased part are rarely of an uniform thickness; being generally thicker towards the right side of the stomach, where I have seen them half an inch in thickness. In some cases, we observe small conical swellings growing from the villous coat of the stomach, and upon the same coat there are generally patches of a florid red colour; the stomach always contains a quantity of a very viscid mucus. A very peculiar species of ulceration follows the unnatural thickening of the coats of the part affected by scrofula, and which was, I believe, first described by Dr. Carmichael Smyth, in the second volume of the London Medical Communications. The size of the ulcer varies from that of a sixpence to that of a crown-piece, its form commonly circular or oval: the erosion of the villous coat is more extensive than that of the muscular; the perforation or opening through the peritoneal coat is much the smallest, and seems produced by sudden rupture. The edges of the ulcer are found well defined, somewhat thickened, rounded, and sometimes hard, a proof of its long standing. The disease is confined to the villous and muscular coats of the stomach, whereas the peritoneal is always free from disease.

The kidney is very subject to scrofulous action. Sometimes the extent of scrofulous suppuration is such that the whole substance of the gland becomes destroyed, and nothing but a bag remains. We shall pass over the section on scrofulous affections of the brain, and also that on scrofulous ophthalmia, with the exception of some short notice of Mr. Lloyd's description of the ophthalmia so long prevalent in CHRIST'S HOSPITAL.

This disease was evidently of a purulent kind, but commenced very gradually, and in both eyes at the same time. Slight inflammation of the palpebral conjunctiva ushered in the attack, attended by a sense of weakness in the eye, and a low degree of intolerantia lucis. This state would often exist for several months, though gradually increasing, till, from some accidental cause, as a cold, blow, or introduction of some foreign substance, a sudden and great increase of inflammation would take place, during which the tunica conjunctiva would become so much thickened or granulated as to form distinct folds at that part where it begins to pass from the eye to the eyelids. This stage of the disease was sometimes painful, sometimes not—and the same might be said of the sensibility to light—and of the general health. Except in bad cases, there was little acceleration of pulse, and no particular whiteness of the tongue. This stage often existed but for a few days, and seldom continued more than a fortnight, except where there was constitutional disturbance. With the cessation of the acute inflammation the third stage might be said to commence. This was distinguished by a sense of weakness in the eyes, and dimness of sight; but particularly by the immensely thickened state of the conjunctiva, and the discharge of a muco-purulent matter, which often lay in masses on the surface of the granulations, or between the folds of the diseased conjunctiva.

In the treatment of this disease, there was nothing to be done during the first stage, or when there was only an appearance of slight inflammation of the conjunctiva palpebrarum, but to wash the eyes occasionally with some soothing or very mild astringent lotion—to anoint the edges of the eyelids with a mild ointment at bedtime—to keep the bowels regular—and to avoid all sources of irritation. Our author, however, confesses that neither this nor any other treatment ever arrested the progress of the disease effectually. When the eye became once affected it went through the three stages above mentioned, “however liberally emetics, bleeding, and blisters were made use of.” Much may be done to mitigate the violence of the disease, however, by judicious treatment in this and other stages of the complaint.

In the second stage, the treatment consisted in bleeding according to circumstances—blisters—tepid fomentations—mild astringent ointments—purgatives. When the growth of granulations or new parts was excessive, and the eyelids had become everted, the argenti nitras, or even the kali purum was the most efficacious application. Instead of giving much pain, as might be expected, there was generally an immediate wasting of the granulations. Care must be taken, of course, that the caustic does not come in contact with the cornea. Mr. Lloyd much prefers this mode to excision; for in the latter case, new granulations were speedily produced. In the third stage, when the inflammation has ceased, and the parts are in a quiet indolent state, the principal part of the treatment consists in the removal of the new granulations, or newly formed surface of the conjunctiva, which may be effected in three ways—first, by the mere action of the absorbents, assisted by the judicious use of stimuli—secondly, by the caustic, as was stated before—thirdly, by excision with the knife or scissors. Of these Mr. Lloyd has found the first mode the most efficacious, except in those cases where the formation of new matter had been so excessive as to produce mechanical injury. Of all stimuli he prefers the saturated solution of argenti nitras, as being the most expeditious in its effects, and least painful in operation.

We may, however, commence with it a little weaker, and gradually increase its strength. The application should be made every day, or every other day. The efficacy of this treatment is proved by the results at Christ's Hospital, where not a single unfortunate case happened among the boys, though several hundreds of them were attacked by the disease. Not even the slightest shade of opacity remained in more than five or six cases out of that number.

After the ample analysis which we have presented of Mr. Lloyd's work, it is hardly necessary to state any opinion on its merits. We shall therefore conclude with a very laconic judgment—it *deserved* the prize awarded by the College.

VIII.

A System of Surgical Anatomy. Part I. On the Structure of the Groin, Pelvis, and Perineum, as connected with Inguinal and Femoral Hernia; Tying the Iliac Arteries; and the Operation of Lithotomy. Illustrated by nine copper-plate Engravings. By WILLIAM ANDERSON, Licentiate of the Royal College of Surgeons in Edinburgh, and Lecturer on Surgical Anatomy in New-York. Quarto, pp. 200, with nine coloured Plates. New-York, 1822.

Tros, Tyriusve nobis, nullo discrimine agetur.

IN this country it must be allowed that, within the last twenty years, great advances have been made in the operative part of our profession. This may be safely attributed, in the first place, to a more correct knowledge of the changes produced on the structure by morbid actions; and secondly, to a more attentive and accurate examination of those parts likely to become the seat of surgical disease, or the subject of operation.

The advantages of such investigations have been well insisted on in all the writings of that late excellent surgeon and anatomist, Mr. John Bell; and the successful labours of such men as Sir Astley Cooper, Burns, and Colles, in the field of surgical anatomy, can leave no doubt as to the importance of the subject. The advantage of keeping in view the ultimate object of anatomical inquiry cannot be doubted; and Mr. Colles has aptly enough observed, that otherwise "the inexperienced student, taught to regard anatomy without any references to its uses, views it only as a collection of detached and uninteresting facts, and a catalogue of barbarous and unmeaning terms."

Our brethren of the new world have not been inattentive to this most interesting and important study, and, in consequence, many of their names adorn the records of surgery.

Mr. Anderson, it appears, has made this branch a particular object of his attention, and has been engaged, not unsuccessfully, as we may gather from the work before us, in communicating his knowledge to others. We have no doubt that, by his labours, he will, ere long, reap a rich and ample harvest. While we are thus inclined to approve of the praiseworthy intentions of the author, and generally to applaud the execution of the task, we know that he would not thank us for withholding what remarks we may have made

on some particular points; nor could we reconcile such a course to the duty we owe our brethren at large.

Our author has, in this volume, embraced the surgical anatomy of three most important operations—those for hernia, aneurism at the top of the thigh, and stone in the urinary bladder.

The anatomy of hernia has lately occupied the attention of the most eminent surgeons, as Cooper, Scarpa, Hey, &c. yet, notwithstanding the labours of these, and many others high in the profession, it remains still one of the most puzzling and confused subjects to the surgical pupil. This has arisen, we are convinced, not so much from the complicated nature of the structure, as from the confusion of terms and the endless differences in the descriptions; there is such a jumble of tendons and ligaments, straight and crooked, and sheaths, and fascias, and arches, with pillars and rings, that the pupil is perfectly confounded and lost among them. But this is not the worst of it, for we find many different names applied to the same part, or to its subdivisions; for instance, the femoral ligament, the falciform process of the fascia lata, and the sheath of the vessels, &c. are all names applied to the same structure. Were surgeons and anatomists, by common consent, to abandon such superfluity of terms, (for when a name, however absurd, is once bestowed, it is seldom forgotten, especially by those who *talk* about anatomy,) a great deal of difficulty would be done away with.

From the following annunciation in the preface, we are led to expect something new on the subject of hernia.

“Upon the structure connected with hernia I have introduced an innovation, having delineated and described a crural arch, distinct from the ligament of Poupart:—this I send forth with all becoming humility, submitting the matter to the investigation of the careful anatomist, and to those who may yet have to divide the structure of a femoral hernia in the living subject. The operations upon the iliac arteries I have considered, because I feel myself prepared to recommend a *more safe operation* for securing them with ligature than has been pursued.” Preface, p. 8.*

Of the comparative safety and success of the operations on the iliacs hereafter; the innovations in the anatomy of

* We cannot exactly understand the tendency of the following observation in the preface. Speaking of his chapter on Lithotomy, our author remarks that he “might have introduced the subject by an essay on the doctrines of Bacon,” &c. Perhaps it is, that such is the practice in some of the transatlantic schools, as well as in a few of those in our own happy country. We heartily agree with our author in condemning such affectation and conceit.

hernia we are bound, in justice to those concerned, to say are not quite *new ones*. The formation of the crural arch, and nearly the whole of Mr. Anderson's new anatomy was described and delineated by Mr. Liston of Edinburgh, in a memoir on the subject, published in 1819. The work is noticed by Mr. A. in page 62, but we are inclined to question if he has seen more than the title which he quotes. By this remark, we by no means wish to cast any reflection upon the respected author—but the reverse. Mr. Anderson's views of the structure are most correct, excepting only in a few points, and these of comparatively little practical importance. In the essential points, he possesses most accurate notions, and for the *discovery* of the innovations we give him full credit.

The anatomy of the groin is preceded by some grave and rather minute directions as to the shaving the hair of the pubes, previous to operations, and the disagreeable and painful consequences of neglecting this precaution. The course of the iliac is then accurately marked, and "we can here," says he, "feel it pulsate in the living subject; and here, we can, by pressing it on the brim, restrain any sudden hæmorrhage from the vessels of the lower extremity, until a *tourniquet* can be procured." 36.

Contrary to the dicta of the late Mr. John Bell, it is now well ascertained, that sufficient pressure can be made, not only to stop the pulsation, but also to arrest the flow of blood, in any artery, without having recourse to the usual contrivance. No complication of screws or rollers is at all necessary to suppress bleeding in an artery, however large. The knowledge of this fact has induced many surgeons, both in the public service and in civil life, to abandon entirely the use of the tourniquet in amputations, aneurisms, or wounded arteries. The advantages of such a proceeding are very great. The surgeon becomes more fearless and bold, in cases of difficulty, and his operations, for the same reason, are rendered more rapid, and, strange to say, more bloodless. The surgeon must be timorous indeed, who could think of using pressure by a tourniquet or otherwise, in aneurism, yet, from a fear of cutting into the vessel, we have seen the tourniquet applied tightly in this operation. The venous ramifications are thus gorged, and their bleeding obscures the incision. Their trunks are distended and conceal the artery which is sought;—but, worse than all, the operator cuts on a distorted limb, the muscles of which are squeezed together, and the relative position of the parts thus lost.* Thus, an opera-

* This, to be sure, is of little consequence to men, who know the parts in neither one state nor another.

tion, which ought to be finished, under any circumstances, in two or three minutes, is protracted for twenty minutes or half an hour, and sometimes a little longer. Such is the case in a great northern hospital, where perhaps operations are performed with more *deliberation* (John Bell has called it "cruel deliberation") than any where else on the face of the earth. But more of this anon. The disuse of the tourniquet in amputation is equally to be desired; but our observations on this subject we shall defer till another opportunity. We may only remark, that it appears strange that surgeons should still persist in the use of this instrument in the smaller amputations, when they find that those of the shoulder and hip-joint can be accomplished safely by slight pressure on the principal vessel.

Though Mr. Anderson has very properly drawn a distinction betwixt the ligament of Poupart and the crural arch, still he does not appear to have observed *all the connexions* of the fasciæ with the latter band of fibres. One passage only, in confirmation of this position, is selected. Speaking of the superficial fascia, "while trying to remove it," says he, "from Poupart's ligament, we are almost sure to cut it through, for, as has been already observed, it appears with it one substance."

A short statement of the views we have been led to adopt, from our own examinations of the structure, will enable us to explain completely the state of this matter, and bring us more satisfactorily to the conclusion of this part of the subject, than by following our author, and bestowing on the different passages that share of praise or blame they might demand.

The fascia lata of the thigh is divided into two portions, the iliac and pubal. The former passing above the large vessels of the thigh, (more superficially,) the other lining the muscles under them. The iliac portion presents, at the entrance of the saphæna vein into the trunk, a falciform edge, (the process of that name.) This iliac portion, as well as its falciform process, is divided into two layers as it approaches the lower boundary of the abdominal muscles, the ligament of Poupart. These layers receive the ligament and muscles betwixt them.—The one layer (in other words superficial abdominal fascia) lies immediately under the common integuments, and covers the tendon of the external oblique. The deeper layer (fascia transversalis) lines, first of all, the inner surface of the internal oblique, and above that the transversalis muscles. At the separation of these two sheaths, a strong fibrous band passes across the space betwixt the anterior superior spinous process of the ileum, to the tuberosity

and spine of the pubis. This band is slightly connected, in some subjects, by cellular substance to the ligament of Poupart; in others, more firmly. In none is the superficial fascia firmly attached to the ligament. If an attempt is made to dissect this sheath much lower than the ligament, its connexion with the fascia lata will inevitably be cut. In all subjects the ligament of Poupart can be completely removed without diminishing at all the tightness of the opening through which femoral hernia passes. That opening is situated betwixt the inner edge of that band of fibres (which we perfectly agree with Mr. Anderson in styling the crural arch) and the femoral vein. We need not observe as to the passage of the chord through the fascia transversalis, excepting to recommend Mr. A. to look into *Cloquet "sur les Hernies, &c."* where he will find a most accurate description and *delineation* too of the covering which the spermatic chord receives from the fascia transversalis.

The extent of the superficial fascia is well described in the volume under consideration.

We left the pubal portion of the fascia lata under the vessels. It is continued upwards over the brim of the pelvis, and becomes continuous with the strong covering of the iliac and psoas muscles. A great deal is said in this as well as other works of the *sheath of the vessels* in this situation. To us it appears a vague, ambiguous, and improper term, likely to lead to false notions. The vessels throughout the body are provided with a dense cellular covering, which binds them and their accompanying nerves together. This is *properly their sheath*, and is common to all. Why the vessels in the groin should have two sheaths, is beyond our comprehension. The *proper sheath*, it is evident, can have nothing to do with hernia. But the *sheath* which is said to be concerned in this disease, is the posterior or deep layer of the falciform process, or that which is continuous with the fascia transversalis. In treating thus lightly of the *great sheath* of the vessels in the groin, we know that we differ from the highest surgical authority in Great Britain—no less than that of Sir Astley Cooper. But we do so with all due deference and respect. After all, it is only as to names; and our reason for differing at all is, that we are of opinion that the vessels, in this situation, have no more title to two sheaths, than those in other parts of the body of equal or greater importance.

The passage of the chord is accurately and beautifully described by Mr. Anderson, more especially the alteration which takes place in the inguinal canal, during the growth of the young subject. On this subject he has borrowed

freely, and we think judiciously, from that most accurate anatomist, the late Mr. Allan Burns. The inguinal canal is known to be quite direct in the fœtus at birth; it gradually becomes oblique, and we might say *valvular*, so as to support the bowels and obviate protrusion. So it is that congenital hernia or inguinal hernia, occurring in young subjects, may be completely got the better of by proper care; whereas, this event is seldom to be looked for in the adult.

We have heard of the application of oak bark (*splashed*)* over the abdominal apertures, with a view of promoting their contraction. We should be inclined to trust to this practice as much as to the use of warm fomentations to relax the same parts, in cases of strangulation. Who, that ever saw the unyielding tendinous openings, could rationally think of either the one practice or the other? The plan savours much of that school in the North, where it is inculcated that *exuberant callus* should and can be repressed in the fractured clavicles of young ladies by glued pasteboard, and other such contrivances.†

On the formation of the ligament of Gimbernat, more properly the crescentic portion of the crural arch, independently of Poupart's ligament; and the crossing of the fibres of the recti to strengthen that part, it is unnecessary to enter. We refer to the plates and description in the memoir we have already quoted.‡ The above descriptive sketch may to some appear useless and tiresome. We have paid a good deal of attention to the anatomy of this region, and it will be seen that we are not of those who consider a knowledge of the fasciæ unnecessary to the pathologist and operating surgeon. It is only from a correct acquaintance with these parts, and their connexions, that we can understand the modifications of hernial tumours, or proceed a single step with safety in any operation on the living body. This mode of considering the parts in a connected view, is the only one by which we are led to understand at all the effects of position in facilitating the reduction of hernia by the taxis or otherwise.

Mr. A. seems to extend the term superficial fasciæ to the

* Mr. Lizars. Edinb. Med. and Surg. Journal, No. LXXII.

† Did those who talk thus wildly of exuberant callus ever read Pott or Bell, (nor Benjamin) or did they ever see a fracture well attended to? We suspect not.

‡ Memoir on the formation and connexions of the crural arch, &c. &c. by Robert Liston, Surgeon and Lecturer on Anatomy and Surgery, Edinb. 1819.

cellular covering of the whole body, and is hence led to speak of that layer on the fore and upper part of the thigh. The cellular substance in that situation, containing the glands of the groin, has little claim to such consideration. In our apprehension, the extension of the term must lead to great confusion. One more remark on this part of the subject, and we have done. In page 76 the following passage occurs:—

“ Since that period, from my own observation, I am firmly of the belief, that the epigastric or external iliac artery is the more common source of the origin of the obturator. I think, notwithstanding, in the majority of these instances, a femoral hernia is more likely to lay upon the artery than be insinuated between this vessel and the brim of the pelvis in its way under the crural arch.”

In this and the preceding remarks we most perfectly concur. We have examined cases of femoral hernia, in which the obturator passed off by a common trunk an inch and a half long with the epigastric; still that vessel surrounded *not* the neck of the sac, but crept behind it. Correct surgical rules can with difficulty be drawn from one old musty dry preparation in the collection of Dr. Barclay—the only instance, we believe, in which the obturator has been found to surround the neck of the sac; whether it ran close to the crescentic portion of the arch or not, cannot now be ascertained. Mr. Hey thought that he could have divided the stricture safely, notwithstanding such a distribution, and so may any one who feels before he cuts, and knows what he should cut.

For a more full explanation of the separated state of the spermatic chord in large inguinal hernia, as also in hydrocele, we would refer to Scarpa's excellent work.* His observations on the mode of avoiding the vas deferens and vessels in the different operations are also worthy of attention. Speaking of large herniæ, which, by the by, our author has said but little of, we may be allowed to make one observation—as to the great hazard of opening such tumours to their whole extent. The folly and danger, we had almost said crime, of such a proceeding, are well shown by some notes of a case we took down from a surgical lecture some years ago. The journals of a certain hospital in the North, famous for its operations, will, we believe, afford further particulars.

A middle-aged man presented himself on account of a

* Scarpa on Hernia. Translated by John Henry Wishart, President of the Royal College of Surgeons of Edinburgh.

large scrotal hernia, 33 inches in circumference. It had been strangulated for eight days. He had stercoraceous vomiting and great pain of the sac, but none of the belly on any degree of pressure. *The tumour was opened, from one end to the other.* The intestines were found thickened and mortified in many parts, but adhering by coagulable lymph to the neck of the sac, and thus cut off from the peritoneal cavity. Attempts were made at reduction for an hour and a half, with but little effect. The patient was carried to bed and died in about an hour. On dissection, it appeared that of half of the small intestines contained in the sac, only about seven inches had been reduced. The adhesions to the neck of the sac were separated; and the upper part completely torn across and presenting an open mouth, had poured its contents into the cavity of the peritoneum among the comparatively healthy intestines. These were covered with an almost imperceptible blush of red vessels.

It must be evident to the merest tyro in surgery, that in this case the inflammation was entirely confined to the gut in the sac, that from the duration of the strangulated state there was every reason to expect disorganization of the contents, and that though the gut *had been sound*, there was no chance of its being pressed into the abdominal cavity, contracted and unaccustomed as it had been to the presence of such a mass. *The attempt, so far successful, to reduce a mortified bowel*, must fill every feeling mind with horror and indignation. Nature might have done a great deal for this poor man, had the sac been slightly opened, and free passage afforded for the contents of the bowels. As it was, he had no chance.

Any person who had thought for himself, (those concerned might be incapable of such exertion,) or had looked into Scarpa's judicious remarks on the subject, could not have been guilty of such blundering. Far less is it possible to suppose that the learned translator of that eminent surgeon's works could have been witness of such a proceeding.

Of Mr. Anderson's diagnosis of hernia, we approve most highly. Every surgeon in extensive practice must meet with many such mistakes as are mentioned, both on the part of the patients and ignorant advisers. We have again and again seen buboes cut for hernia, and hernia for buboes; cirsocele treated with trusses, and so on; in one day we witnessed two such cases. The patients were in excruciating agony, from the great distention of the tumour. We have seen aneurisms poulticed, and blistered, and opened, and have even heard of the application of the actual cautery, in the form of moxa, to their surface. These things have happened, and must

continue to happen, in the hands of those who will not take the trouble, or who are incapable of acquiring the fundamental branches of the profession.

No pupil of Mr. Anderson's, we will venture to predict, will have himself to blame for any such mistakes.

As to the operation, we have but one or two remarks to make, and the first is in condemnation of the instrument called a *directory*. Mr. A. is too good an anatomist to require such an instrument himself, and he should leave it as a distinguishing mark of those who grope on, uncertain how many layers (whether twenty or one) they require to divide before coming to the sac. Many a time have we witnessed fully twenty minutes occupied in splitting *curiously*, with a sharp pointed directory, the various layers over a hernial tumour. Such a plan can serve only to tease and exhaust the patient, it cannot add to his safety. Scarpa talks of the hand unsupported in such incisions. It is the speediest and safest mode on the whole. The dissecting forceps will answer in raising the deepest layers if necessary. The danger of wounding the epigastric artery we consider not worth thinking of. If the incision is only carried so far as to relieve the stricture, it never can be wounded, whatever the direction may be. If the surgeon is determined to cut up the belly without an object, he may, *at the least*, encounter this artery. That it never was, by any chance, *unavoidably* cut in this operation, we are quite convinced.

"The epigastric artery," says Mr. John Bell, "never was cut—never will be cut—never can be cut. Various are the surgeons, good and bad, in country and in town, who have sought for the same, with their fingers some, and some with their knives; yet hath it not been found: it lieth at the back of almost every rupture, both of the groin and of the thigh, nor hath it been found playing bopeep with the hernia,—as most notoriously the femoral artery hath been *detected*, so amusing itself, to the great terror of all beholders, and indescribable danger of the king's lieges."

We concur most heartily in our author's recommendation to proceed *instantly* to operation; whenever a gentle trial of the taxis has failed.

"Was I the subject," Mr. Anderson remarks, "of a strangulated hernia, I think I would not, under the most favourable circumstances, suffer the operation by the knife to be delayed more than six hours from the time of the first symptom of incarceration; a very small portion of which period, I would consent to have occupied with the taxis."

Much mischief may arise in a very few hours, more espe-

cially in femoral hernia, owing to the extreme tightness* of the stricture, and we should scarcely be inclined to grant even so long a delay as our author. We have been in the habit, of late, of proceeding to the operation *immediately* on being called, and have seen ample reason, in the success attending the practice, to continue in the same course.

We now come to that part of the work which treats of the anatomy and operations on the iliac arteries, &c.

The diseases and injuries of the arteries, and the operations required to remedy such, are of the utmost interest to the surgical practitioner; whether we regard the danger to the patient, the comparative simplicity of the proceedings necessary, or the beautiful, and, in general, successful efforts of nature during the process.

The splendid improvements of John Hunter on the old and barbarous cure for aneurism; (if cure it might be called, when scarce a patient was saved, and some of the most eminent surgeons preferred amputation, in *this disease* a most hazardous and desperate remedy,) the great operations of John Bell, Sir A. Cooper, and Mr. Abernethy; and the important pathological expositions of these eminent surgeons, as also of Jones and Scarpa, have reduced the treatment of this disease to a degree of certainty, almost unknown in any other. Operations on the great arteries, the bare mention of which would have appalled our forefathers, are now frequently put in practice. What would *they* have thought of Mr. Anderson's directions for the ligature of the aorta? This operation has indeed been accomplished by Sir A. Cooper, but it is not for those possessed of ordinary hands or heads, to imitate him in this. We shall confine our remarks to an operation more frequently required, and by which more lives are likely to be saved—the ligature of the external iliac artery.

“The plan which I shall propose,” says Mr. Anderson, “to enable the surgeon to get at these vessels in the living subject, will, I think, be accepted by all who will take the trouble to reflect upon the structure of the parts.” 142.

The only unfavourable consequences which our author seems to apprehend, are inflammation of the peritoneum, and the occurrence of hernial protrusions. His directions are there-

* After dividing the stricture of femoral hernia and reducing the contents, we have, in some cases, found it almost impossible to insinuate the point of the ring finger under the crural arch.—How small then must it be previously, and how slight the scratch necessary to allow the return of the parts.

fore intended to obviate these accidents; they are to this purpose—to disturb the peritoneum as little as possible, and to make the incisions in the course of the muscular fibres, and no farther than absolutely necessary. Both good rules enough; the former, it is to be hoped, acted up to by all who have attempted the operation. We cannot approve of the mode of dissecting the integuments from the external oblique to such an extent (or to any extent at all) as Mr. A. proposes; nor can we see the purpose of it. In debilitated patients, or those advanced in life, such a practice would probably be followed by the sloughing both of the skin and tendon.* Surgeons differ much as to the direction of the incision. That recommended by Mr. Anderson certainly affords many advantages, and is approved of by good surgeons in this country. Mr. Abernethy's mode of incision admits of the artery being tied further from the seat of the disease, than either Sir Astley Cooper's or Mr. Anderson's; but then, the abdominal contents are left, in a measure, unsupported. A middle course might, perhaps, be followed with advantage. An incision might be made nearly parallel to the linea semilunaris, on the outside of the inguinal canal, by which very few of the fibres of the external oblique, or indeed of the internal, at this point, will be divided, and at the same time, the artery reached an inch and a half or two inches above the ligament of Poupart.† By pursuing this method, we should have little dread either of inflammation or hernia. What has always given us the greatest uneasiness, after the ligature of an artery, is the risk of secondary hæmorrhage; and to the prevention of this accident, all our endeavours, both in the performance of the operation, and in our after treatment, ought to be most anxiously directed.‡

It might be considered somewhat out of place for us to enter here, into the question regarding the propriety of applying the ligature, so as to divide or not, the inner coats of an

* Such is occasionally the result of the extensive separation of the skin in amputation; as we have seen practised. When sloughing occurs, there being no other covering, the bone, of course protrudes, and the patient sinks under a complication of affliction, or drags out a miserable existence with conical and irritable stump.

† This plan appears to have been followed by Mr. Liston, of Edinburgh. —*Ed. Med. and Surg. Journal*, No. LXII. page 72.

‡ We cannot approve of Mr. Anderson's observation, that on the introduction of the aneurism needle, "the artery will now be elevated through the ring." This could not be done without separating the vessel from its connexions, and thus endangering the death or ulceration of its coats.

artery. It is well ascertained, that the approximation of the inner surface is sufficient to incite such an action, as will terminate in effusion of lymph and obliteration of the calibre of a vessel. The presence of a foreign body, as a ligature applied slackly to the coats of a vessel, will, now and then, produce the same effect. This may be all very well in the way of experiment, but we have long been firmly convinced, that the breach of continuity in the internal coats of an artery, and their close coaptation, *ensure*, more completely, the effusion of lymph and obliteration of its canal. If a small round ligature is applied, without the intervention of nerve, sheath, or other part, to an artery, and so tightly as to divide the inner coats, it will separate readily in ten, twelve, or sixteen days, and leave no reason to regret the *non-employment* of pincers—*presse-arteres*—or temporary ligatures. In short, we are advocates for the single permanent ligature *properly applied*. What we mean by properly applied may be asked. The sheath must be cut upon, exposed, and opened slightly, with the point of the knife; the artery is then to be surrounded by a small, round, and firm, silk ligature, conveyed by means of a very fine aneurism needle, of a slight curvature—a single knot is then to be drawn tightly, and secured by a second;—the greatest care being taken, both in applying the ligature and tightening it, to leave the artery *undisturbed*.*

Mr. Anderson observes, "when these operations are attempted for the cure of aneurism, there is no sufficient reason, generally speaking, why they should prove fatal. Yet such has been the case, and may occur again, if an unrestrained use of the knife is resorted to." P. 142.

We are willing to admit readily, that the knife is not to be used entirely in the operation for inguinal aneurism, in separating the peritoneum from the abdominal parietes. Mr. Anderson, we are convinced, does not mean to reprobate the free use of the knife in *all* operations for aneurism, or to recommend the barbarous, unsurgical, we would almost say *inhuman* mode of getting to an artery, by tearing with the fingers, handle of a knife, or other blunt implement, as recommended and practised by some surgeons. This can only

* We have frequently heard Mr. Liston, of Edinburgh, attribute his uniform success, in operations for aneurism, to such a mode of proceeding as we have described—the clean incisions down to the vessel, and the inclusion of it in a small ligature without disturbing or separating it at all from its connexions. He has, we understand, again and again, tied all the arteries of the body, among the rest, the *left* subclavian, without losing a patient, and without the occurrence of secondary bleeding, or any untoward accident.

proceed from the operator being conscious of his deficiency in anatomical knowledge. He cannot say that he will make his way more quickly or easily to the artery, with a blunt than with a sharp instrument; though he may, at the instant, do it with more safety to his own reputation. But what is the reputation of such a practitioner to the *patient's welfare*? No one will be so bold as to say that *he* will be saved less pain at the time, or that *his* chance of recovery will be the greater for such a mode of operating. The cellular texture, treated in the fashion we have described above, cannot adhere so as to support the vessel—it being well known *that every lacerated wound must suppurate* more or less. The artery torn up from its bed must die to a greater or less extent, and secondary hæmorrhage be the result. The consequence of such a proceeding is well exemplified in the following case which occurred lately in a large hospital.

A stout man, 50 years of age, was admitted on account of popliteal aneurism of two years standing. The tumour was of a moderate size, and the pulsation distinct. A professor of anatomy was employed to make a survey* of the parts, and when the vessel *was found* to mark its course† by three points of caustic, thus * * *. Notwithstanding these precautions, a quarter of an hour was spent, next day, in seeking both inside and outside of the thigh, for the vessel. When it was found, it was torn and separated from its bed by the introduction of the fingers of the operator and assistants under it. A large, coarse, flat, and uneven ligature, of four threads, was then tied close to the lower attachments of the artery, leaving at least an inch of its coats insulated betwixt that and the heart. As was to be anticipated, bleeding came on, about the fifteenth day, early in the evening. The hæmorrhage, which was profuse, was suppressed by a compress and bandage, and the surgeon sent for express. He declined attending. In the morning, when required in consequence of a recurrence of the same accident, he again refused. At the visit *he ordered twenty ounces of blood to*

* By drawing lines and raising angles!—a contrivance to make up for deficiency in relative anatomy—a regular trigonometrical survey.

† It is not to be supposed that a person filling the honourable situation of surgeon to a large public hospital, should be under the necessity of employing another, probably equally ignorant as himself, to mark out the situation of the femoral artery, previous to the operation for aneurism. This expedient would, no doubt, convey to our American readers, a very favourable opinion of the state of surgery in some parts of this country.

be drawn from the arm.* That evening the hæmorrhage again appeared, and ceased spontaneously. The patient expressed great anxiety that something should be done to save his life, and that, at all events, the person who had operated should visit him. The attendants were equally desirous of assistance, and an express was again sent, but in vain. Next morning, after a very urgent message, the operator appeared. Symptoms of mortification had shown themselves, and the patient, then moribund, lingered till the evening—apparently destroyed by the operation and its consequences, without an effort being made to repair the defects or effects of either.

The examination showed the limb immensely swollen and livid—the cicatrix sphacelated—the separation of the femoral artery for a great extent above the ligature—this portion imbedded in suppurating cellular substance, and perforated by numerous sloughy holes—a large false aneurism in the thigh, containing at least three pounds of coagulated blood—abundant effusion of lymph below the ligature, none above; and lastly, the perfect soundness of the whole vessel from the bifurcation of the aorta to the tumour, excepting at the very place of rupture in the ham, where there was even less appearance of degeneration in the coats than might have been expected—only a couple of slight specks. The artery was most limber and sound, its coats below the ligature, especially the muscular, being thickened by long-continued exertion.

This case requires no commentary. Let those who are capable judge if the operation was performed in accordance with the best rules of modern surgery or not. Certain it is that after the occurrence of the hæmorrhage, the only chance which the poor man had, viz. the ligature of the iliac, was withheld. This chance the surgeon was bound to give, and, in all probability, success would have followed the proper performance of this operation.

We regret the fatal result of Mr. Anderson's two cases, in which he was called upon to tie the external iliac. The operations appear to have been resorted to under very unfavourable circumstances. He would have gratified us, however, by stating whether peritoneal inflammation or secondary bleeding was the cause of death.

* We should be glad to receive an explanation of what was expected from this extraordinary practice. It would appear that violent bleeding from a ruptured femoral artery had been confounded with the case of oozing from the mucous surface, in which venesection is now and then practised, on what principle, or with what propriety, we cannot pretend to say.

We shall now enter shortly on the last subject treated of in this respectable work, and we have the satisfaction of conveying to Mr. Anderson our most unqualified approbation of his anatomy of the parts concerned in the operation of lithotomy. His description of the iliac fascia and its connexions forming the partition in the pelvis, is most accurate. We question, however, the propriety of dividing so much of the side of the bladder, and we are advocates for the employment of one cutting instrument only, in making our way into that viscus. We are aware that an experienced and bold surgeon and anatomist will find his way, and that with perfect safety to his patient, put what instrument you will into his hands, be it knife, gorget, or lithotome. The staff grooved *betwixt the side and convex part*, as recommended by Mr. Anderson, is employed by some eminent surgeons in this country;—we may notice one of them, Mr. Charles Bell. We would recommend Mr. A. to look into what has been done in the school, of which that able surgeon is the head, in regard to the anatomy of the bladder and parts connected with it. A few additional remarks on this interesting subject will be excused—and first, in regard to the direction of the wound.

The incisions ought evidently to be free, and the direction of the wound dependent. The external incision (as every external incision ought to be made in reference to the object in view) must be extensive,* and carried completely beyond the verge of the anus.

The fascia of the perineum, transverse muscle, and levator

* The division of an inch or two of integuments, more or less, in any operation, will neither add to the patient's suffering, nor retard the cure one day—whilst room will be afforded for the speedy removal of the disease. On the contrary, the division of too little integuments, by but half an inch, will render the ready accomplishment of the afterparts of an operation most difficult, tedious, and, from the delay, even dangerous to a patient. We have seen many patients die exhausted, before the first dressing, from the protraction of operations, in themselves of no great importance. From the teachers who, in their anxiety to conceal the blunders of themselves and brethren, and attribute such unfortunate results to any thing but the true cause, we differ most widely. *Inflammation* will not always account for a patient's death; nor will *all* the young men attending a public hospital be cajoled into such a belief, the more especially, when neither distended vessels nor effused lymph can be discovered. We would, if we may be allowed, recommend to such people a little more candour. Let them, at least now and then, acknowledge their errors; and when they have occasion to speak of adhesions and preternatural sacs, they will perhaps be more readily credited. Two or three inches of the femur sticking through an unhealthy stump, is certainly more likely to occasion death than membranous adhesions of the lungs, perhaps of twenty years standing.

ani, must be freely divided, and all with a view of allowing the easy extraction of the stone, and ready escape of the urine. It strikes us to be of less consequence how much or how little of the neck of the bladder is wounded, provided that no force is necessary in the extraction, and that the urine has a free exit through the external wound; if it has, extravasation will not take place; if it has not, whatever may be the extent of the wound, or whatever fascia is cut or not cut, extravasated it must be; and the almost inevitable consequence is the destruction of the patient. We have had the misfortune to witness the death of a good many patients after this operation. Those of them who lived over twenty-four hours, and have been attentively examined after death, have uniformly presented most unequivocal marks of urinary infiltration into the cellular substance about the neck of the bladder. It is a difficult matter, however, to convince some practitioners of such a circumstance as this, and more particularly when they have been long engaged in the practice of representing softening of the kidneys, thickening of the bladder, or old membranous adhesions of the lungs, as causes of death in such cases. We have been almost tempted to apply the infiltrated cellular substance to the olfactory organs of these sceptics, thus giving them to understand that if they did not see, they might, at least, smell the cause of death in their patients. Such was the coarse, though impressive way, in which the late Dr. Monro, of Edinburgh, is said to have conveyed a rebuke to a practitioner (surgeon he could scarcely be called) who had perseveringly mistaken a case of ruptured urethra and consequent extravasation, for some affection of the testicles. The Dr. found the patient in *articulo mortis*, evidently from the culpable ignorance of the attendant; and, in his indignation, applied the cloth with which the scrotum had been enveloped, soaked as it was with urine, in the way, and with the observation, we have above mentioned.

In the fatal lithotomy cases, we have, in general, noticed that the direction of the forceps in search of the stone was downwards and backwards, instead of inclining rather upwards. What can possibly occur, when, in addition to its improper direction, the wound is crammed with lint, and the patient's thighs bound firmly together? The passage of the urine through the wound being denied, a little may find its way through the urethra; the remainder insinuates itself by the side of the bladder; pain comes on with great restlessness; peritoneal inflammation is suspected; the patient is bled copiously and repeatedly;—leeches, blistered, and dies. When the wound is made, as we have already descri-

bed, and the free exit of the urine perhaps still further secured by the use of an elastic gum tube, no such results are likely to happen.

The internal pudic artery, we apprehend, is in greater danger when the deep incisions are made with a beaked instrument of whatever kind, pushed, as it must be, along the groove of the staff, than when a sharp-pointed one is made use of. The incisions, in the one case, are made in a measure at random, and towards the ramus of the ischium. In the other mode, the fore-finger of the left hand guides the knife, and the incisions may even be made *from* the seat of the vessel. We have seen this artery cut, and should not choose to witness such another accident. The blunder is more easily committed than remedied. Mr. Thomas Blizard, than whom no surgeon could be more bold or dexterous, was luckily present, and succeeded in arresting the hæmorrhage by ligature.

Another accident, equally serious, we have still to notice, as now and then occurring in this operation—the wounding of the rectum. The circumstance of one of the greatest and most successful lithotomists* this country ever produced, having twice committed this mistake in attempting a most hazardous mode of opening the bladder, ought not to be admitted as an excuse, now that the principles on which the operation is to be conducted, are more fully understood. The wound of the rectum can arise only from the most culpable ignorance or inattention, and is an accident which almost inevitably will render the patient miserable for the remainder of his life. Life, in fact, cannot be long protracted under such suffering and misery, nor is it much to be desired. By the constant draining of the urine into the rectum, and the passage of flatus and liquid *feces* through the urethra, the healing of the wound is effectually prevented. Some means might perhaps be employed to promote this most desirable object, before the opening becomes fistulous. In such cases as we have met with, the opening had existed for many months, (God forbid that we should meet with them at an earlier period, or at any period) and proved incurable—notwithstanding every attempt, and some of them bold enough. One case was that of a gentleman of some consequence. The operation was most tedious, and in the evening the urine, *feces*, and flatus, passed as we have above mentioned. The wound was opened repeatedly, and the patient tormented with the forceps in the bladder in search of fragments of

* Cheselden.

stone, until he was exhausted. He dragged out a miserable existence for a few years, unable, of course, to go into company, and incapable of any enjoyment. We have seen and heard of similar instances both in *public* and private. It is said that such an accident is not fatal—it may not be necessarily so, but the consequence of it are sufficiently disastrous to the patient. Nor can the consciousness of having committed such a horrible blunder be at all supportable by the surgeon, unless he be entirely devoid of feeling, and lost to shame. We may be told, in answer to all this, that some surgeons cut the rectum intentionally in this operation. Out of eleven cases on record of this new recto-vesical operation, as it is called, we find that two died and other two continued to have a communication betwixt the bladder and rectum. These facts are sufficient to prevent us from attempting or recommending such a practice.

What the advantages are to be derived from laying the rectum and bladder into one, we could never discover; whether that is done by accident or design. The only reason at all plausible is, that in this way, a larger stone may be extracted than by the lateral incision. We will venture to assert, and without fear of contradiction, that if the rectum be completely emptied, and the incision carried well down by its side, an opening large enough for the extraction of any stone that will pass the *outlet* of the pelvis, can be made. We do not apprehend that either the recto-vesical or old high operation, with all its new complications, will ever come into vogue in this country; the more especially, when we consider the great success attendant on the lateral method in the hands of those qualified to perform it. Incapable men have had, and have still the presumption, to attempt this and other operations which can only be safely accomplished by those who understand the structure of the parts, and have hands to execute what the head directs. No mode of operation and no form of instrument can ensure success in any operation, or make up to such clumsy operators for their lack of knowledge, their wavering of mind, or trembling of hand. Out of fifty-two patients operated on by the lateral method, Cheselden lost only two. Mr. Barlow, of Blackburn, out of more than sixty, has lost also two; whilst Mr. Martineau, of Norwich, has, by most extraordinary success, saved eighty-two out of eighty-four. In a Royal Infirmary of the North, we witnessed, during last winter, three operations for stone. Out of the three, one escaped.*

* Such is likely to be the success, not in this alone, but in all other operations, so long as surgeons require political judges and hired pleaders to support and defend the result of their practice.

It is for such unsuccessful practitioners to contrive new modes of operation, or rather, in charity, to abandon operations entirely. The latter course would be the most conscientious and advisable, in whatever way we view it—whether for *their own interest*, or that of suffering humanity. We have put *first* the stronger incentive to a right mode of action.

We doubt if Mr. Anderson's book will be either understood or properly appreciated by such people. Be this as it may, we shall, however, extract one good advice from his preface, for their edification.

“By habitual dissection, an easy use of the knife is acquired, so much looked for in an operator, by which the parts are cut with more *safety* to the patient, and *satisfaction* to those around. An operating surgeon, therefore, should be a clean dissector; as most operations consist in neatly dividing and separating living parts. The student should, on this account, thus qualify himself, and with accuracy, in the dead subject, that by frequent employment therein, he may become so familiar with the general structure of parts, that he will not be confused or interrupted by the flowing of blood during an operation; as this will be more or less an impediment as the surgeon's anatomical knowledge is deficient. *Moreover, as he is frequently called to cut within a hair's breadth of the patient's life, it is highly necessary indeed that he knows where he treads.*”

Some forms of expression in the work before us, we confess, sounded rather strange in our ears; but we believe them to be not peculiar to Mr. Anderson alone, but to the whole of our transatlantic brethren. The plates are, in general, well executed, and creditable enough to the artists employed. The rectum, vesiculæ seminales, and prostate, in the last, have but a distant resemblance to any thing in the pelvis, which we have seen in this country.

We now take leave of our author, by assuring him of the pleasure we have had in the perusal of this part of his work. He has already given proofs that he is an industrious anatomist and an accurate observer of nature. We hope he will pursue the subject in the second part with vigour, as we are firmly convinced that the undertaking is well calculated to advance the science of surgical anatomy in that quarter of the world.

IX.

A Manual of the Climate and Diseases of Tropical Countries, &c. By COLIN CHISHOLM, M.D. F.R.S. &c.

[Concluded from No. 9, page 121.]

IN our first analytical article on the work before us, we concluded that portion of it which refers more particularly to the climate and diseases of equatorial regions, and reserved for the present article, those diseases, which (being more or less common to all climates,) are interesting to all classes of our readers. We did not touch, and shall not here touch upon, the third part of the work, because it is a condensed analysis of Dr. Chisholm's well-known Essay on the Malignant Pestilential Fever of the West Indies, denominated by the Doctor and several others, the BULAM fever. We are unwilling to revive disputes about names; but to the account of the malady itself, as drawn up most ably by our author, we refer our tropical brethren, leaving the doctrinal parts of the subject for their own consideration, when they have opportunities of witnessing that dreadful scourge in our transatlantic possessions.

We shall also pass over CHOLERA MORBUS, because, although it is a disease sufficiently common in this country, our author treats of it only as it occurs between the tropics—especially in that fatal form denominated “spasmodic cholera,” or “mort de chien.” Dr. Chisholm's experience leads him to fully coincide with a late writer on the subject, that *bile*, so far from being a cause, is a salutary phenomenon in the disorder—“a copious flow of bile becomes a certain criterion of the cessation of disease.” 85.

In a short chapter on *colica pictonum*, Dr. Chisholm informs us, that when he settled in the West Indies, 35 years ago, this disease was very common; but that now, it is hardly ever seen. He ascribes this change for the better, (and we think him right,) to the great change which has taken place, from intemperance to temperance, in the manners of the inhabitants. In respect to the disease in Devonshire, the operation of its cause was thus explained to him on the spot.

“In the summer and autumn, when the husbandmen are laboriously employed in the hay and corn harvest, the common practice of these men is to drink cider to the extent of their ability to buy, or rather, as it is allowed without limitation in hay harvest, to the extent of the capacity of their stomachs to contain it. The labour at this season produces an intolerable heat in their persons. Now the great cold of the cider, together with its harshness and

acidity acting against the heat produced by labour, gives rise to a spasmodic state of the bowels, which, acquiring its acmé in 24 hours, or even less time, in very many instances terminated in death. These labourers are so very inconsiderate, that, to allay the excessive heat and thirst occasioned by their work and the great heat of the season, they often drink to the extent of six or eight quarts of cider in the day; and, not frequently, such is their avidity and the uncomfortable state of their feelings, fill their stomachs at one draught." 94.

Dr. Chisholm has taken some pains to guard the young practitioner against confounding enteritis and colica pictonum—a mistake which, he thinks, would be fatal.

"The symptoms which distinguish colica pictonum from enteritis are these; the pain, at first, is rather more at the pit of the stomach; it afterward fixes itself at the umbilicus, and thence darts in all directions over the abdominal viscera, accompanied by such retraction of the abdominal muscles as to oblige the patient to lean forward as the only posture in which he feels any thing like ease; whilst the circulation does not appear to be affected. In enteritis, the abdomen is tumid, prominent, and hard, and the pulse is quick and full, the pain seems concentrated, and does not diverge in those spasmodic twitchings or dartings, observed in colica pictonum. In the latter, too, besides the rigidity and retraction of the muscles, the belly seems pressed or drawn towards the spine, with a force proportional to the degree of spasm. In enteritis there is no spasm. In colica pictonum there is soon perceived a disposition to paralysis in the extremities, and often, a contraction of the joints; which in enteritis never takes place." 95.

Two modes of curing this disease are laid down by Dr. Chisholm—one by opiates and purgatives—the other by opium and calomel conjoined. "Either, if boldly adopted, will effect the object in view."

In a very short chapter on chorea, Dr. Chisholm informs us that, in most cases, Dr. Hamilton's plan of purgatives totally failed; and indeed we have seldom seen chorea cured by purgatives. Latterly he cured six cases by blistering the sacrum. The patients were all young—from six to eighteen years old. The third application of blisters uniformly put a stop to the disease in all six cases.

The tenth chapter, on worms, contains many excellent observations. It is well known, that these animals make great havoc among the negroes of the West Indies, and, indeed, the children of the whites also. The great indigenous vermifuge of the West, is the *spigelia anthelmia*, or arabaca of Plumer. But its effects are so extremely violent, as to render its exhibition very unsafe. In Dr. Chisholm's European practice, nothing has been equal to the oil of turpentine, whether in *tænia*, *terres*, or *ascarides*. We shall quote one

case from our author, exemplifying the good effects of oil of terebinth. in these complaints.

"The second case, was a lady at Clifton, about 25 years of age. From her symptoms, I suspected the presence of *tænia*;—an insatiable appetite, constant and gnawing pain at the stomach, a wan complexion, melancholy state of mind, torpid bowels, &c.—I gave turpentine here, as a sure remedy to destroy *tænia*. She took six drachms unmixed. The consequence was truly surprising. It acted in about an hour, and brought away, at one discharge, at least three pounds of solid *scybala*, but impacted masses, and an amazing quantity of *ascarides*. The patient herself was terrified at an effect so unexpected, and, to her apprehension, so frightful—but my astonishment was greatly increased, when at the end of three days the dose was repeated, I found precisely the same result. Every symptom then ceased, and she got rapidly well.—Several cases have since occurred; and two of *teres*; all with equally happy results. Upon the whole, therefore, I am decidedly of opinion, that no vermifuge, hitherto employed, should supercede the use of oil of turpentine, which I have reason to believe will be always found a safe, a cheap, and a most certain remedy, in every case of worms, whether *tænia*, *teres*, or *ascarides*." 100.

Dr. Chisholm takes this opportunity of mentioning his experience of oil of turpentine in several other complaints. He has exhibited this medicine with much benefit as an aperient in chronic hepatitis, and hepatic melancholia, or hypochondriasis. In many of these cases, oil of turpentine has more effectually cleared the bowels than calomel alone or combined with other deobstruents, and that without griping. This medicine seems to stimulate the whole line of the *primæ viæ*, to loosen the impacted *scæces* throughout all the convolutions, and make a speedy and effectual clearance. The occasional but short excitement of the urinary organs is the only inconvenience Dr. C. has experienced from the oil.

On the chapter embracing pneumonia we shall not dwell. Dr. Chisholm, after a copious detraction of blood, at the beginning of the disease, trusts rather to nitre, calomel, and antimonial powder, taken every three hours or oftener, than to repetitions of the bleeding and digitalis. This powder should be assiduously continued till the constitutional effects of the mercury are evident, when the pulmonic symptoms will give way. This is a modification of Dr. Hamilton's well-known plan of treatment; but whether it is an improvement, our own experience does not enable us to judge. Our author seems to lament the havoc which is made by depending on bleeding as long as the blood exhibits the buffy coat, "and digitalis until the system labours under what has been called *merbus digitalis*." He has observed this practice "so often

followed by phthisis and a lingering death, that it should be discarded from the physician's mind." For our own parts, we never depend on any such criterion as the coagulable lymph of the blood. We look entirely to the functions of the lungs and heart—till they are free, we bleed whether there be buff or not; and when they are free we desist, even were the last cup a mass of inflammatory crust.

In respect to phthisis, our author truly observes, that it is not by low latitude or approximation to the equator, that we are to calculate on paucity of this dire scourge of Europe:—"it is the peculiar localities of places and countries, and the degree of exposure to cold northerly winds, &c." which constitute the liability to pulmonary inflammation, and, of course, to phthisis. This disease as certainly follows pulmonary abscess between the tropics, as in England; but it runs its course much quicker. The sensation of cold, and its effects on the human system, are relative in all climates:—thus the cold of 65° or 70° has the same effect in the torrid zone, if suddenly applied while the body is heated by exertion, or enveloped in the usual sun-heat of 100 or 120, as that of 32° in northern countries, under similar circumstances. The observations of our friend Dr. Clark on this subject are peculiarly valuable, and are applicable to the point under consideration. As far, however, as regards the predisposing cause of phthisis, viz. scrofula, a tropical climate undoubtedly is unfavourable to its production. Scrofula, in fact, is nearly unknown between the tropics.

"Within the tropics," says our author, "but more especially in the West India islands, we have changes of temperature and perspiration in turning around every projection, and in receding into every hollow; profuse perspiration and corrugation and dryness of the skin succeed each other, as these projections and hollows do. If, therefore, means are not resorted to, to provide against these quick changes, the sympathy between the skin and the lungs will be forcibly excited, and inflammation and congestion in the latter will follow. Pneumonia and phthisis will be, as certainly, (perhaps more certainly,) the consequence, as in a cold climate, where such quick succession of inequality of surface, and such quick alternation of heat and cold, are not so frequent. I have already pointed out (part 1. ch. i. and iv.) how much the agency of this singular versatility contributes to the production of disease, and more especially of pulmonary and hepatic inflammation in the West India islands. It is, indeed, a most prolific cause, when not counteracted by temperance, and a care to preserve the skin from its peculiar and pernicious effect. I may venture, therefore, to say, that pneumonia and phthisis, as far as temperature and the vicissitudes of it are con-

cerned, are, in proportion to the population at least, as frequent within the tropics, as in cold and temperate climates." 110.

In the Mediterranean and West Indies this may be the case; but we do not think that the East India climate comes under the same rule. Dr. Chisholm seems to view the incipient stage of phthisis as decidedly an inflammatory one, and that consequently there is nothing to be depended on, in this stage, but the antiphlogistic treatment. Whether it is strictly an inflammatory process by which the tubercle itself breaks down into a fluid resembling matter, is doubtful; but there can be no doubt that the cellular substance surrounding the tubercle is disorganized by inflammatory action, in the purulent stage of the disease, and kept in a state of inflammatory irritation during the enlargement of the tubercle, or incipient stage of phthisis. This view of the subject leads, of course, to antiphlogistic measures and counter irritation, bearing in mind the scrofulous constitution with which we have to deal, and which certainly requires caution when depleting measures are pursued.

It is a curious fact, that *all changes* of climate, even from a warm to a cold one, are serviceable for a time to the phthisical invalid. We cannot resist the temptation to insert the following extract from our intelligent and experienced author.

"When purulent expectoration, laborious respiration, pain in the left side, emaciation, hectic flushings, and other symptoms of impending, or actually formed phthisis, are observed, there is no safety by remaining in the climate. It must be immediately changed, or measures must be adopted which, in their effect, may, in some degree, be equivalent, otherwise death is inevitable. A sea voyage and a temperate or cold climate, present the only, or at least, the best chance of life. Medicine in this case, with a view to cure, is totally useless; and only tends to raise hopes which never can be realized, or to lull the unfortunate patient into a fatal security. If a voyage to any part of North America, Great Britain or Ireland, or to Bermudas, cannot be accomplished, from deficiency of means to defray the expense, the next best measure will be to cruise among the islands. To remain stationary is to wait the certain approach of death. The instances of the benefit derived from frequent change of climate are many. I have known life preserved and rendered comfortable for many years, by a plan of this kind. I shall mention only one instance—a gentleman who had often been my patient in Grenada, adopted it with complete success. His phthisical constitution was formed, within the tropics in early life, by neglect and improper treatment of pulmonary inflammation.—He possessed the power of change, and was relieved in North America.—But after a few months residence there. the

symptoms began again to develope, and he returned to Grenada. He was, again, apparently restored to health ; but after two years residence, he became again unwell ; and now changed to his native country, Scotland, where he recovered and remained some time. But his complaint then returned, and for relief he resorted to the tropics. In about six years, by thus constantly changing the climate, on the reappearance of the symptoms of phthisis, this gentleman had his health perfectly well established ; as a security, however, and being possessed of ample fortune, he continued to make a frequent interchange of climate. The fatal insurrection in Grenada in the year 1795, was at length the cause of his death ; for having made great exertions in the cruel warfare consequent upon that calamitous event, which his constitution was not equal to, he sunk under them, after more than twenty years of well-established health." 111.

Our author has seen some remarkable instances, where an active bustling occupation, with temporary exposure to what may be deemed hardships, such as often occur in military or maritime service, during active campaigns or expeditions, have produced a wonderful change in constitutions apparently ruined by phthisis. " One thing," says our author, " is most certain, that confinement to the atmosphere of a room, or even house, is most highly prejudicial ; it renders the person infinitely more susceptible of the impression of cold, and thereby tends to augment the evil which it is supposed calculated to remedy."

" A method of cure of phthisis pulmonalis, different in the means, but not dissimilar in principle, to that mentioned in the last paragraph, has been for some time adopted, with very considerable success. In one case, a youth of eighteen, a near relative of my own, the practice was used, certainly with great benefit.—The practice employed in this case, was begun by sponging the chest and arms with a mixture of one part of vinegar and two of water, made moderately warm ; this was immediately followed by dry friction with a flesh brush, or a piece of flannel. After a short time this was done to the whole body, that is, the sponging and dry friction daily, gradually reducing the mixture to coldness.—When this was done so long as to produce an evident change for the better, in the symptoms, the vinegar was used alone at night, and cold water in the morning. The diet was nourishing, but simple, and consisted in equal but small proportions of animal and vegetable food.—A little wine diluted with water at first, was allowed, afterward it was allowed plain. The only medicine given was the following. Two ounces of bark were boiled in a quart of water for ten minutes—it was strained, and two ounces of the tincture of bark, and a pint of port wine were then added. Of this a wine-glass full was taken every day.—Moderate and amusing exercise was enjoyed in the open air.—This plan adopted with great benefit in the case of my relative is pretty nearly the same as Dr. Stuart's *M. D.* minis-

ter of Bolton, as described in a letter, I believe, from himself, and published by Dr. Sutton. (See *Edin. Med. and Surg. Journ.* vol. ix. p. 356.") 113.

Before concluding the subject of phthisis, our author begs leave to recommend "the inhalation of the effluvia from raw Muscovado sugar." He has known it produce a wonderfully soothing effect, "which has, in some instances, become permanent." In Europe, a small barrel, or even basin, filled with the coarsest and dampest Muscovado sugar, may be placed in the corner of the room occupied by the patient. But in the West Indies it would be better to lodge the invalid near the boiling house of a sugar plantation—"and in changing the climate, a sugar-laden ship is the best conveyance.

Our author, after drawing a melancholy but a faithful portrait of that wretched vicious indulgence between the tropics, and indeed every where else, namely, grog-drinking and other species of inebriety, remarks, that, when the mischievous and degrading habit happens to be subdued by right reasoning and acting, there generally remains a pain or almost indefinable sensation at the stomach, which is very distressing, and proves a great temptation to have recourse to the original cause of the evil.

"The remedy I have long and successfully advised for this, is a very simple one, a moderately sized tumbler of water, as warm as the patient can conveniently take it, on getting out of bed and dressing in the morning. This simple remedy has more efficacy than any other I ever tried;—it soothes the stomach, disposes the bowels to discharge their contents, encourages the secretion of bile and other fluids employed in digestion, occasions a warm glow on the surface, throws out a gentle perspiration, and finally gives a desire for breakfast.—If there is acid eructation, a small quantity of the infusion of camomile flowers, with magnesia, in the proportion of a small tea-spoon full of the latter to two or three wine-glasses full of the former will be found a pleasant combination of a tonic and absorbent. Should the acidity prevail, and be attended with pyrosis, lime water is proper; but the most likely to allay these symptoms is the oxyd of bismuth rubbed up with a little sugar and powder of cinnamon. The dose should not exceed four grains of the oxyd thrice in the day, at least that is the quantity I have found most beneficial to adults. I make use of the word allay, because, as all these symptoms, generally, if not always, depend on, and should be considered as indicating hepatic derangement, so should those means be resorted to, which mainly apply to the removal of that derangement. Thus, therefore, those absorbents should be employed as accessories, and mercury given, in the manner stated under chronic hepatitis as the principal agent: The oxygenated

sulfate of potash has done much good in chronic hepatitis brought on by habitual ebriety, or dram and grog drinking. As a tonic when those horrible feelings I have described, have yielded to moral and physical regimen and medical treatment, the following pill has answered better than any thing I have ever tried. R. extract gentian. ℥i. extract. colocynth. com. gr. x, antim. tart. gr. i. m optime et divide in pilulas octo—sumat unam bis terve in die." 116.

We shall here take notice of the appendix to the work before us, which contains some observations on the climate of Geneva, and the relative prevalence of phthisis there. It appears that very accurate registers are kept at Geneva by a medical officer appointed for that special purpose. The population of that place is 24,000, and the deaths one in fifty annually. This is almost exactly the same as in England. But then the deaths by phthisis at Geneva and in England are very different. In the latter country it is one in 224 of the population annually—in Geneva it is only one in 521. It appears also from the tables, that the mortality occurs chiefly at ages below 15 and above 40.

"These results are the more extraordinary, when we consider the peculiar localities, and their effect on the climate of Geneva. Geneva is placed nearly in the gorge of a long and broad valley, containing some of the most beautiful scenery in the world, its fine, blue, transparent lake, and a considerable portion of two very rapid rivers, the Rhone and the Arve ;—confined by the nearer and lower ridges of the Savoy Alps on one side, and by the Juras on the other ;—and terminated by very narrow passes through lofty mountains at the Ecluse on the SW. and at Villeneuve on the NE. It is thus necessarily subject to strong currents of wind from the SW. and NE.—and no other points, which are sometimes frightfully furious ;—the former generally bearing on its wings watery clouds and heat ; the latter excessive dryness, no clouds, but often piercing cold. From this peculiarity of situation, the climate of Geneva possesses sometimes and in some years, in winter, almost the cold of Russia, and almost the heat of South Italy in summer. Fahrenheit's thermometer in the shade and exposed to the north, was as high as 92° in August, and as low as 5° in January, 1820. This, however, was a year of extraordinary heat and cold—and in general the mean temperature of the year is pretty nearly that of the West of England, being 55°.—The city of Geneva is built on the sides and summits of two hills of small elevation, on each side of the Rhone, where it issues from the Lake, giving it the aspect of remarkable beauty, and singular irregularity in its outline—but its streets are very narrow, the houses very high, built of hewn stone chiefly, each having a common staircase, and every story or floor constituting a distinct house, or suit of apartments for a family.—The city is consequently subject to a variety of cross currents of air, and in many parts to a complete abstraction from the rays of the sun,

so that on entering the city from the country a person experiences, in an instant, a very considerable change of temperature. In consequence of this arrangement too, Rheumatism and catarrhal affections are very common; and perhaps, to this sudden alternation of cold and heat, may be attributed, indirectly, that females are so subject to the goitre or bronchocele; their mode of dress, which leaves the neck exposed at all seasons and all temperatures, giving great effect, in that part, to the action of those sudden changes, and these cross currents of air." P. 335.

These particulars may be interesting to the British profession, as Geneva is now the residence of very many English families—and as all travellers pass through this celebrated city on their way to "Latium's velvet grounds."

We are reluctantly compelled to pass over the sections on coup de soleil, phrenitis, hydrocephalus, rheumatism, ophthalmia, and other inflammations, as we perceive that our limits will be overstepped. These sections contain many highly valuable observations, which well deserve the tropical reader's attentive perusal.

The 15th chapter, which is a very long one, embraces an extensive review of the history and treatment of tetanus, which is a severe scourge between the tropics, and too often baffles the powers of medicine in Europe. We are sorry to say that no satisfactory conclusion results from our able author's learned researches. His own experience leads him to trust more to *depletion and mercury*, as the *principal* agents in the *methodus medendi*, than to any other plan which has yet been proposed or acted on.

The same remark may be made on Dr. Chisholm's section on hydrophobia—a still more indomitable disease than tetanus. Our author, however, has brought forward into a focus all that is known of the pathology and treatment of this direst of all afflictions, and left his readers to judge for themselves, as to the most eligible plan to pursue. His own judgment inclines him to venesection and mercurial ptyalism, as the surest means of checking the hydrophobic inflammation.

From the concluding part of this chapter, in which some cases and observations are introduced on the subject of catalepsy, and cataleptic, maniacal, and hepatic hysteria, we shall make a short extract.

"These diseases seldom, indeed, occur within the tropics: nor should I have introduced them into a work confined to the history and treatment of tropical diseases, had I not experienced the beneficial effects of the depletory and mercurial treatment of them since my return to England; and had they not thereby furnished additional illustration of the propriety of that treatment, in the two im-

portant diseases which constitute the subject of the two preceding sections of this chapter. Catalepsy and cataleptic, maniacal and hepatic hysteria, have been cured by a similar but much less rigid process. Only one case of the first, six of cataleptic maniacal, two of maniacal, and, at least, forty of hepatic hysteria, having been cured by moderate bleeding and purging in the first instance, and afterward by mercurial ptyalism. These diseases, which there is every reason to believe depend on a similar but less intense inflammatory diathesis, and a similar locality of that diathesis, as that observed in tetanus, and hydrophobia, are arrested in their progress by these means, and the cure has been completed by mild tonics combined with anti-spasmodics, in the following form. R. oxyd. zinci, gr. $\frac{1}{2}$ ad gr. iss, assafoetidæ—extract. rad. valerian.—Hyoscyami aa gr. iss. m. ft. pilulæ duæ pro dosi sumendæ 3 vel 4 in die." 157.

Some very interesting cases are introduced in illustration, for which we must refer to the work itself.

The volume concludes, as we before stated, with an excellent abridgment of the author's former work on the pestilential fever, commonly (but he thinks erroneously) called the yellow fever. Whatever discrepancies of opinion may exist as to the etiology and nature of the disease, all must allow that Dr. Chisholm has handed down to posterity a very valuable history and description of the disease and its treatment—a series of *facts* which must stand, however *doctrines* may revolve, rise, and sink again. This part of the work, therefore, will prove an important document in the hands of the young tropical practitioner, and to his careful perusal we recommend it.

Having fully expressed our opinion, in a former article, of the merits of the work, and of the character and talents of the author, we need not here repeat that opinion; but we cannot avoid introducing Dr. Chisholm's pious, zealous, and affecting farewell to his professional brethren, before we close the book.

"Having now finished what I proposed to offer for the guidance and instruction of the young and inexperienced in the diseases of tropical climates;—and having with this manual, for ever quitted the practice of my profession, I affectionately take leave of them, and of my medical brethren in general, assuring them of my most sincere respect, and of my most cordial wishes for their happiness and prosperity; and wishing them to be persuaded, that, if ever any remarks, or any language of mine, have given pain, or offence; if ever I have betrayed animosity in the maintenance of my own, or asperity in the consideration of another's opinion;—fully aware of the absurdity of a conduct, which the frailty of human nature, and the limited capacity and knowledge of man, can give no sanction to; I here solemnly abjure, and entreat pardon for. And I now most

earnestly and fervently implore the true, the Almighty Physician, to shed the influence of his blessed Spirit on these my labours; most humbly and devoutly trusting that, should it please Him to make me, thus, an instrument, by which a ray of light may be thrown on the dark path of Tropical Pathology, He will be graciously pleased to render that light more vivid, and those minds it is intended to illumine, still more open to receive its impression; so that a more clear perception of the obstacles, difficulties, and dangers, they have to encounter in their road, may be established; thereby giving that road more smoothness, more safety, and more simplicity, in conducting them to the grand object of our united efforts, the preservation of health, and the cure of disease, in a country where the former has been uncertain, and the latter too often impossible, under existing circumstances." 233.
Geneva, May, 1821.

Amen! say we. And in the name of the profession (for we are sure our readers will silently but sincerely unite with us) we proffer to our venerable brother in retirement, the homage of reciprocal respect, esteem, and fervent wishes for his happiness. May he experience, amid the romantic valleys and majestic scenery of Switzerland,—

"What nothing earthly gives or can destroy,

"The soul's calm sunshine, and the heartfelt joy;"

resulting from the retrospect of a well-spent life here, and a confident anticipation of the joys of a world to come.

X.

Medico-Chirurgical Transactions. Vol. XII. Part I. 8vo.
 pp. 254, with plates. 1822.

THIS first part of the twelfth volume is certainly superior to some late parts of preceding volumes; and sincerely do we hope that the prize, which is now offered for the best paper annually, may prove an attraction for communications of sterling merit. "In selecting papers, say the council, for the prize, the choice shall not be confined to those written by members only, but it shall extend to all papers which shall have been read to the society." We have no doubt that the council are perfectly aware of the responsibility which they thus incur. Not only is their impartiality, but their judgment also is at stake, and the public are rigidly just censors on all such occasions. With due deference, we

humbly beg leave to question the policy of the council in resolving that the Society's transactions shall appear at stated epochs, viz. on the 1st of July, and 1st of February, of each year. They thus render their volume a kind of stagecoach, which, by being obliged to start at fixed periods, is often obliged to run with scanty fares. This, indeed, is now well known to be the great draw-back on all periodical publications of original papers, and we are somewhat surprised that in multiplicity of council, where there is, of necessity, the maximum of wisdom, this obstacle should not have been taken into consideration. The Medico-Chirurgical Society should recollect that their transactions are now viewed, in foreign realms at least, as a tolerable scale or index of the state of medical and surgical science in this country. Surely, then, they should not voluntarily impose on themselves laws which are but too well calculated to draw a shade over their former lustre. But we shall not pursue the subject farther, as we are well convinced that "corporate bodies," (a term, by the by, which we have always looked upon as a piece of tautology, for can bodies be *incorporate*?) will very rarely listen to the advice of individuals, however conscious they may be of the propriety of the advice.

The volume before us contains twenty papers of very unequal extent and value.

Art. 1. Dr. Marshall Hall relates the cases of four children who had attempted, by mistake, to drink boiling water from the spout of a tea-kettle. "The effects of such accident," says he, "are not, as might be supposed, *à priori*, inflammation of the œsophagus and stomach, but of the glottis and larynx, resembling croup"—constituting instances where the operation of laryngotomy or tracheotomy may be necessary to prevent impending suffocation.* We agree with our author, that it is hardly probable that any of the boiling water reaches the stomach. Its presence must throw the muscular fibres of the pharynx and œsophagus into such spasmodic contraction, as will effectually prevent its further progress in that direction.

* When we consider that the fauces, œsophagus, and stomach, are accustomed to have hot and solid substances daily applied to them, while the membrane lining the passage to the lungs is only accustomed to an aërial current, we cannot wonder that, in such accidents as the present, the larynx and glottis should be the principal sufferers. The first inspiration, under such circumstances, would convey burning steam to the tender and delicate tissue covering the air passages, and the severe consequences may be readily imagined.—*Ed.*

"Of the four patients whose cases are about to be given, one recovered from imminent suffocation immediately after violent screaming; two died from suffocation—one 10, the other 17 hours after the accident; the fourth was completely relieved by the operation of tracheotomy—survived 34 hours, but died, exhausted by the irritation produced by the primary affection." 2.

The first little patient, three years of age, had no assistance for three or four hours after the accident, during which interm augmenting difficulty of breathing came on. A mixture of oil and syrup was recommended; but the dyspnœa continuing to increase, the little patient was bled from the jugular vein, without any relief. Suffocation now threatened, and leeches were ordered. But the sight of the leeches caused the patient to scream violently, and they could not be applied. The dyspnœa now subsided, and she was well in a week. The parents supposed, and with no mean degree of probability, that the screaming ruptured the vesicles which impeded the breathing, and thus proved the unexpected means of cure.

The second child was but two years of age, and in four hours after the accident began to labour and rattle in breathing. He died from suffocation about seventeen hours from the receipt of the injury. The little patient had been bled, and took oily linctuses, but without benefit.

The third patient, of the same age, shared a similar fate in ten hours from the accident.

The fourth patient was two and a half years of age, and our author saw the child five hours after the injury, when she was breathing with difficulty, and with a hoarse croupy sound. She was able to swallow without manifest pain or coughing. The tongue and all the internal parts of the mouth were blanched and blistered—pulse frequent—dyspnœa increasing. To prevent impending suffocation, tracheotomy was performed twelve hours after the accident. The relief was immediate. The little patient sat up, played, looked cheerful. The voice was, of course, extinct—the breathing free through the orifice. In six hours the dyspnœa had considerably returned—the face was pale, and the child appeared to be dying. In a few hours, however, the child rallied, and the dyspnœa had lessened. Next day the little patient was worse, and apparently sinking. She died at 2 o'clock, or about 34 hours after the operation.

"On dissection, there was observed a swollen, blistered, and corrugated state of the epiglottis; and a similar state of the posterior fauces, tongue, and internal mouth. There was a little mucus in the larynx, but no perceptible morbid condition of the œsopha-

gus or stomach. There was no inflammation of the trachea, not even near the orifice made by the operation." 7.

To the above cases Mr. Stanley, of Guy's Hospital, has appended the particulars of two analogous cases—one, from the private practice of Mr. Gillman of Highgate—the other from the records of Bartholomew's Hospital.

Mr. Gillman's patient was a little girl, of three or four years of age, who drank, or attempted to drink, boiling water from the spout of a tea-kettle, at seven o'clock in the evening. Mr. G. saw the child in an hour afterward. It had been vomiting violently in the interval—saliva flowed copiously from its mouth—pulse small, quick, and feeble. Oil of almonds with gruel, and some tincture of opium were ordered every four hours, and an aperient next morning. By that time, however, the child was much worse—there was great difficulty of breathing, vomiting, and short cough. Leeches were applied to the trachea. The poor child struggled through a painful existence till the second morning, or 38th hour from the accident. On inspection the whole interior of the mouth, fauces, pharynx, and principal portion of œsophagus "presented the usual appearances of a scald." The stomach was but little affected. The lining of the trachea was much inflamed, and on different parts depositions of coagulable lymph were observed.

The case in Bartholomew's was a child three years old, who lived twelve hours after the accident. In this case the symptoms seemed to indicate disorder of the brain, as sunk countenance, gloominess of aspect, and complete prostration of the vital powers.

"Upon examination of the body, a slight effusion of transparent fluid was found between the tunica arachnoidea and the pia mater, and into the cellular texture of the latter. About three drachms of a similar fluid were found in the lateral ventricles of the brain. The vessels of the brain were not preternaturally turgid. There was a slight redness and tumefaction in the mucous membrane of the pharynx, and upper part of the larynx, above the opening of the glottis. The glottis was of its natural diameter; the morbid appearances were just sufficient to show that irritation had existed in the parts. The trachea, œsophagus, and stomach were of a healthy appearance." P. 11.

From the facts which are here presented to us, we should be led to conclude that, wherever the dyspnoea was the pressing symptom, and it was so in five cases out of six, laryngotomy is the only measure which promises success. But it should be performed early, and the opening should be kept perfectly pervious till all danger is over. Would not

ice-creams kept constantly dissolving in the mouth be more soothing, and perhaps more salutary, than syrups and oils?

Art. 2. This is a case of ligature of the subclavian artery by Charles Mayo, Esq. Surgeon to the Winchester Hospital. We regret to say that it was not successful—though it deserved success.

The patient was a man 38 years of age, who was admitted in March, 1821, with a pulsating tumour below the left clavicle, which was readily ascertained to be aneurism of the axillary artery. The patient had perceived the tumour about four months, and it was always pulsatory. The pulsation was now (March 18th) very strong, and the artery above the clavicle not easily compressible. The tumour seemed rather to overlap than elevate the bone. The pulse at the wrist was the same as in the other arm. He complained of severe pain and irritation in the breast, shoulder, and arm. Having been bled, purged, and an opiate given at bedtime, he was operated on next day, the 19th March. We shall give the steps of the operation in the author's own words.

“The man was laid on the operating table, with his shoulders a little raised, and his legs hanging over the table, and resting on a chair. I made a transverse incision, about two inches and a half in length, along the upper edge of the clavicle, and from the middle of this incision I made another directly upwards along the outer margin of sterno-cleido-mastoideus muscle; I then dissected back the triangular flaps, thereby exposing the edge of the mastoid muscle, and the omo-hyoideus, which crossed the upper angle of the wound. In the space between the latter muscle and the clavicle, I now felt the artery with the end of my finger, and then proceeded to expose it fairly by removing the cellular tissue which covered it. This cellular tissue was partly divided by a few cautious touches of the scalpel, and partly detached from the vessel by the handle of the instrument. I next directed my assistant to draw the nerves a little outwards with a hook, and then, passing my finger into the bottom of the wound, I felt the artery distinctly upon the rib, and, pressing upon it, stopped the pulsations in the tumour. I touched the cellular tissue cautiously on each side of the artery with the edge of the scalpel, but still could not raise it from the rib with my nail; it seemed firmly attached in its situation. I tried to pass probes and other instruments beneath the vessel, but ineffectually. At length, I insinuated the tip of Desault's elastic needle under the outer side of the artery, and, holding the canula firm upon the rib, I desired the assistant to press down the stilet, which caused the needle to pass under the artery; but I had some difficulty in bringing its extremity up on the other side, as it constantly hitched in the neighbouring fibres of the scalenus and mastoid muscles, the great flexibility of the needle allowing its

course to be altered by the slightest obstacles ; at last, by catching the point with my nail, I was able to guide it round the vessel, while my assistant pressed it forward ; I next threaded the needle with a strong round ligature, and cautiously withdrew it into the canula ; then, bringing the double ligature under the artery, I cut it from the needle. The two portions of ligature were now separated from each other as much as possible, and one was tied ; then, with the assistance of Mr. Ramsden's iron instruments for tightening the ligature, the knot was drawn, the inner coats of artery were sensibly divided, and the pulsations in the tumour ceased ; a second knot was then made, and tightened in the same manner. I now attempted to withdraw the loose portion of the ligature, but found that it was so connected with that which had been tied, as not to allow of its being withdrawn without force ; therefore I let the whole remain. The ligatures were brought out at the lower part of the wound, the edges of which were approximated by strips of plaster, and over this a light compress was confined." 15.

The hæmorrhage was trifling, and the patient passed a good night. For the diary of the case, from the day of operation till the 25th March, we must refer to the volume. We may remark, however, that the pulsation returned in the tumour, and even at the wrist, the day after the operation. On the sixth day, arterial hæmorrhage occurred to the amount of a pint. The pulsation of the tumour now ceased, and the size became diminished to one-third its original size. There was no more hæmorrhage till the 29th of March ; but on the 28th there were shivering fits, with delirium, fever, and other unfavourable symptoms. On the 29th there was hæmorrhage from the wound, which was the case on the 30th and 31st, but not to such extent. On the latter day he died.

"April 1st.—*Dissection.*—The aneurismal sac was exposed by the reflexion of the pectoralis major and minor muscles ; its lower boundary extended to the inferior margins of the third rib ; and above, it extended beneath the clavicle to the first rib ; laterally it reached from the axilla to the sternum. The axillary vein was found exterior to, and firmly united to the sac, at its inferior part. Three or four large nerves of the axillary plexus were stretched over the middle of the sac. In the further progress of the examination, the following circumstances were noticed : The aorta appeared thinner than usual, and the carotids were in some parts so thin as to be transparent. The left subclavian artery was completely divided at the part where it had been tied, and the two portions of the vessel were separated about a quarter of an inch from each other, the ligature being retained by a few cellular threads in the midspace between them. The extremity of that portion of the artery connected with the sac, was much contracted, and completely filled by coagulum. The portion next to the heart was not in any

degree contracted, and its cavity was open to the extremity, which was, in part only, filled by lymph. This lymph closed the orifice of the artery, except at one part, where there was an aperture that would receive the end of a probe between the lymph and the extremity of the vessel, and leading directly into the cavity of the latter. Five large branches, viz. the vertebral, internal mammary, cervicalis profunda, superior intercostal, and inferior thyroideal, arose from the artery between its origin and the ligature. These branches arose close together, and at a distance of only half an inch from the part where the artery had been tied. The right side of the heart was filled with blood; the lining of the thoracic aorta was partially thickened by a pulpy substance, deposited beneath it. Some small shreds of coagulable lymph were found on the pleura. The upper lobe of the left lung was observed to adhere to the pleura costalis, and when separated from it, I discovered that the posterior part of the tumour had penetrated the chest, so that the sac was here in contact with the pleura. The sac contained about a tea-cup full of recent coagulum, and some large masses of laminated fibrine. The sternal extremities of the three first ribs were in a great part absorbed; the brachial artery was not in any degree contracted, and was quite pervious to its termination in the sac. Immediately below the sac, a large branch arose from the artery, almost equal in size to the trunk, and immediately divided into the infra-scapular and two circumflex arteries." 23.

The condition of parts, as ascertained by dissection, was unfavourable to an operation, and would probably have rendered it, even if successful at first, abortive in the end. We cannot but think that the success of an operation of this kind on a large artery mainly depends on the non-separation, to any extent, of the vessel from its connexions. If it were possible to pass a needle and thread round an artery without any separation at all, we think the success would be far greater than it now is. But as this cannot be done, we imagine the surgeon should endeavour to come as near to it as he can. We consider the above operation as very creditable to Mr. Mayo. The paper is written with modesty and perspicuity.

(To be continued in our next.)

Quarterly Periscope
OF
PRACTICAL MEDICINE;
BEING THE
Spirit of the Public Journals,
FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriti oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

*Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.*

1. *Fever.** Dr. Armstrong's writings on fever have deservedly obtained such reputation for their author, that, as is said of Lord Byron, "it is out of his power to write any thing that will sink." It is on this account that he must be doubly anxious not to write any thing that *deserves* to sink.

The present communication to our respected cotemporary, is an *AVANT-COURIER* to a forth-coming work, for which we shall look with much impatience. Dr. Armstrong states that in 1819, he attended a patient labouring under an intermittent fever, which, in its progress, put on a remittent character, and ultimately a continued form and typhoid type, accompanied by very malignant symptoms. This case made a deep impression on his mind, and inclined him to ask, whether intermittent, remittent, and typhus fevers, might not possibly be modifications of one and the same disease. Up to this period Dr. A. had firmly believed that human contagion was the sole cause of genuine typhus fever; but a doubt having been excited, he determined, if possible, to divest his mind of all former bias, and investigate the subject *ab origine*. In the course of the three succeeding years, a very great number of typhus cases have fallen under his notice, and the result of his observations is a decided conviction "that what the Italians vaguely call *malaria*, and the English, as vaguely, *marsh effluvia*, is the primary source of typhus fever."

* Dr. Armstrong's Observations on the Origin, Nature, and Prevention of Typhus Fever. *Med. Intelligencer*, No. xxx. May, 1823.
Vol. III. No. 10. 3 E

We have always considered, that the great epidemics which have ravaged this and other countries at different periods, derived their origin from *terrestrial exhalations*,* the operation of which was probably aided by certain states of the atmosphere, not yet ascertained; but that these fevers have propagated themselves afterward by a *new source*—human contagion—has now been so fully proved, that nothing, we apprehend, can shake the foundation of the belief. Some of the ablest practitioners of the present day believe that genuine typhus fever, as described by Huxham and others, is now a rare disease; and a considerable portion of our readers will remember the celebrated discussion which took place at Guy's Hospital, between Drs. Curry, Clutterbuck, and Armstrong, on the subject of fever about four years ago, wherein Dr. Curry distinctly insisted on the terrestrial origin of what are termed typhus fevers. As two-thirds of our readers, however, cannot now have access to the volume of our *quarterly* series in which this discussion was recorded, we shall quote the following passage from Dr. Curry's speech:—

“Here Dr. Curry took occasion to pass an eloquent, and not unmerited eulogium on our own immortal Sydenham, whom he looked upon as little inferior to Hippocrates himself. The longer Dr. Curry lived, and the more he saw, so much the more strongly was he convinced of the truth of Sydenham's opinion, that diseases obeyed a periodical influence, partly from the circumambient air, and partly from terrestrial exhalations, or from both combined. He supported this opinion by many ingenious reasons, and important facts, drawn from the histories of epidemics since the year 1793. Among other data on which he has grounded his assumptions, the following one was stated. In the autumn and winter of 1809, when the Walcheren fever produced such havoc among our troops in the Islands of Zealand, Dr. Curry affirmed, from his own personal knowledge and observation, that there was not a street or lane in this metropolis wherein remittent and even intermittent fever might not be seen among the inhabitants. Hence he concluded, that the same aërio-terrestrial influence, which showed itself so fatally in the debouches of the Scheldt, where vast bodies of men were congregated under circumstances exceedingly favourable to its full operation, was also acting with greater or less power, over England, and probably over the whole surface of the globe. It was in this way, he said, and upon this principle only, that the spread of those desolating epidemics, which in some years, ravaged the western tropics, and the countries of North America and Europe partaking of a tropical nature could be rationally accounted for. This view

* “Upon the whole, we think that we have been too precipitate in rejecting the opinion of Sydenham; and that no other hypothesis, if such it be, is half so plausible as the *TERRESTRIAL* origin of epidemic influence, however that influence may be subsequently transported about, or modified by atmospheric constitution.” *Med. Chir. Rev. Dec. 1820.*

of the subject led him to suspect that many young men of the present day, who prided themselves on having discovered the true nature and the most effectual treatment of fever, and who supposed that their forefathers and predecessors were all in the dark, in these respects, had, in reality, but little cause of self-gratulation, since the diseases which their despised forefathers treated in this supposed unskilful manner, were very different from those of the present day; and hence that it was very probable—nay, that it was almost certain, that future generations would eye the doctrines and practices of our times with as much astonishment, and as exultingly contrast them with their own, as we do now with respect to times past. This consideration, he maintained, ought to repress the pride of the present generation.”*

After having pointed out this coincidence of opinion between Dr. Curry and Dr. Armstrong, we shall now pursue the latter gentleman's statements in the paper before us.

Dr. A. observes that, 1st, the intermittent, remittent, and what is called continued typhus fevers, pass or repass into each other, as he has repeatedly observed—2dly, the remittent fever from *malaria* or *marsh effluvium*, “has a combination of symptoms exactly similar to those which occur in continued typhus fever, and which, as a combination, occur in no two other affections whatever.” If Dr. A. therefore was now to make a nosological arrangement, he would call the disease “intermittent, remittent, and continued typhus.” In tracing back many of the cases, Dr. A. found that they had commenced as intermittents—he has seen the remittent run into the continued typhus, and the continued typhus become remittent or intermittent. Our author leaving aside, for the present, certain aberrations of the disease, which cannot easily be arranged under any systematic division of the schools, proceeds to the identification of marsh remittent and continued typhus fever, by an analysis of the symptoms which they observe in their regular and unequivocal forms. The following observations we could not abridge without loss of value in the delineation.

“The remittent form, as it occurs in this country, is always attended by a simultaneous affection of the brain, mucous membrane of the air passages, mucous membrane of the alimentary canal, and of the liver; and this peculiar combination of symptoms is accompanied by as peculiar a lassitude of mind and loss of muscular power. The affection of the brain, among other signs, is denoted by a dropping of the upper eyelids, which, therefore, cover a larger portion of the globe of the eyes than natural; while the eye itself is more glary than in health, and yet it conveys an expression of dulness or indifference of mind, so that there is a remarkable mixture of physical brightness and intellectual muddiness in the expres-

* Med. Chir. Journal, Jan. 1819. This discussion took place in November, 1818.

sion of the countenance. It is difficult to convey this mixed expression in words, but any practitioner who has once seen it could hardly mistake it again. The affection of the lining of the air passages, is partly marked by some preternaturally purplish hue of the lips, attended with more or less huskiness of the voice, more especially observable when the patient coughs ; and the cough is usually slight or severe according to the degree of the affection of the lining of the respiratory passages. The affection of the mucous membrane of the bowels and of the liver, is generally marked by the evacuations from the bowels being mixed with glary mucous and dark bile, which often resembles brown melted resin. There is also frequently some obscure abdominal uneasiness on pressure, especially about the pit of the stomach. The tongue is covered by a dirty whitish fur in the centre, and its edges are usually redder than natural ; but in the progress of the disease it often becomes brownish in the centre, and the breath, more particularly in cases of the continued type, has almost always a peculiarly sickly odour.

“ The lassitude of mind, and the prostration of strength, are closely connected with the state of the mucous membrane of the air passages and the affection of the brain ; for the lassitude and languor are always the greatest in those cases where this combined affection is the most strongly indicated. This lassitude and languor are also remarkably indicated by the voice, manner, position, and motions of the patient. The remissions, when distinct, occur under two circumstances. The patient either becomes gradually or suddenly hot ; and the hot paroxysm most frequently comes on towards evening, continues through the night, and terminates commonly towards the morning, the skin at that time becoming moist and moderately warm, or quite cool, but not moist ; while the pulse in both instances becomes slower, softer, and of less volume than during the hot paroxysms. Now the only difference between the remittent fever and continued typhus fever, is, that in the latter, as it appears in adults, the symptoms are more severe, and the remissions are entirely absent ; the skin being hot or warm, and the pulse quicker than natural during the whole day and night, though even in that form, the pulse and heat are highest at the latter period.

“ The combined affections, then, of the brain, lining of the air passages, lining of the alimentary canal, and of the liver, together with a peculiar lassitude and languor, are the true diagnostic signs of the remittent, and continued forms of typhus fever. Other parts may be and sometimes are simultaneously affected, but, if we except the spinal cord, the affections of those parts are not essential, but accidental occurrences. The continued form of typhus in particular is liable to considerable variety in its expression, as the disorder may predominate most in the brain, lining of the air passages, lining of the alimentary canal, or in the liver ; but still an accurate observer cannot fail to recognise the disease from the coincidence of the above signs, though they may be slight or severe. The morbid appearances also are correspondent to the symptoms, for dissection in mortal cases shows the remains of some disorder in the circulation of the brain

lining of the air passages, and lining of the bowels, varying considerably in degree ; but it is curious, that though the secretions of the liver are so generally disturbed during the progress of the disease, yet seldom any traces of organic mischief are exhibited in that organ. Certainly one of the most remarkable peculiarities of typhus, particularly under its continued form, is the affection of the mucous membrane of the bronchia ; and I could show, from many facts, that it is the main cause of the varying degree of heat, of muscular and mental disturbance, and that it not only gives rise, in the advanced stages, to the peculiar dryness and darkness of the tongue, but that it is connected intimately with those symptoms which have been termed malignant, and which the older writers found so difficult to explain on any thing like rational principles. The want of due decarbonization of the blood is the cause of many of the most remarkable symptoms attendant on typhus ; but the degrees in which this process is impeded, are not always proportionate to the degrees of mucus accumulated in the bronchial tubes, and spread over their lining ; for in some instances the secretion on the tongue, and on the fauces, is a sort of sticky varnish, and this same secretion, seemingly exists occasionally on the mucous membrane of the respiratory passages, when little mucus is comparatively, accumulated there. Blood, not duly decarbonized, operates more or less as a narcotic on the brain, and tends materially to influence the animal heat and the heart's action ; and hence partly arise, in the progress of strongly marked cases of typhus, the muddled state of the brain, the smothered heat of the surface, and the soft compressible pulse, which become its concomitants, however high the excitement may have been for the first three or four days." 162.

Why typhus fever assumes in one person an intermittent, and in another, the remittent or continued form, Dr. A. thinks, may probably be owing to the dose of the poison, or the condition of the recipient, or on both conjoined. Dr. A. avers that he has ascertained, beyond a doubt, that the remittent and continued forms of typhus are complicated with internal inflammation, in one or other of the four parts above specified. This doctrine, we are sorry to observe, does not quadrate with Dr. Armstrong's former statements in respect to typhus, the simple form of which (a continued form) was said hardly ever to leave any visible alteration of structure on dissection. We do not, indeed, deny, that some degree of excitement in some of the structures of the body takes place in most continued fevers ; but we are far from believing, that it takes place coeval with the pyrexia, and still less do we consider it in the light of the cause of the febrile state. We cannot agree, therefore, with our most esteemed friend in his opinion, that " internal inflammation is probably the immediate cause why typhus puts on the remittent or continued character."* Indeed, after seeing human contagion so generally,

* *Med. Intelligencer*, p. 163.

we might almost say universally, (for the exceptions are not more frequent than in most other general rules in medicine,) produce the continued form of fever, and marsh miasma the remittent and intermittent forms, we cannot bring ourselves to the belief of the identity of origin in the two classes.

"The only objection, which has struck me, to this view is, that the miasma which produces the intermittent form may be originally human, and not marsh miasma, because the ill-ventilated habitations of the poor will as certainly confine the effluvium of the human body as it will marsh miasma. But after the immense body of evidence which Dr. Bancroft has collected, to show that human effluvium, however concentrated, does not produce typhus or contagious fever, it seems much more philosophical to conclude, that it is the concentration of marsh, and not human miasma, which originally produces this disease." 163.

Dr. Bancroft has laboured hard to prove, that *dead animal matters*, however putrid, and however concentrated the effluvia from them, will not induce fever, but, neither he nor any other man has been able to prove, that the effluvium from crowded *living bodies in a state of disease*, are equally innocuous. The arguments used by Dr. Bancroft to prove that the cause of disease at the "Black Assize," and at the "Old Bailey," was marsh miasma, or a stream of cold air, are now justly considered by the profession, as mere forensic eloquence and legal quibbling to prove that black is white, and white no colour at all. In short, Dr. Armstrong himself, while he hesitates in allowing typhus fever of the intermittent and remittent forms, to possess the power of propagating itself from one individual to another—in other words, to be contagious, admits that "he has met with cases where the *continued* form of the disease, in which the secretions are the foulest, certainly appeared to propagate itself by contagion."* Now we think that, where two forms of disease have such a remarkable distinction that one is contagious and the other non-contagious, there is some ground for supposing they arise from different origins. Among other instances which our excellent and candid author could adduce in favour of continued typhus being contagious, he states the following remarkable fact.

"A very respectable woman, who performed the office of a nurse to some patients labouring under typhus, was assisting one of them from the night chair, and she became sick at the stomach, and faintish, from the offensive odour of the evacuation which he had just passed from the bowels. From that time she drooped, and a few days afterward had a severe attack of continued typhus, characterized by its peculiar combination of symptoms. This is a striking instance, and I have met with some others which were equally, or even more striking."† 166.

* Med. Intelligencer, p. 165.

† For a very remarkable fact of this kind, we refer to Dr. Proudford's

We entirely agree with this distinguished and observant physician, that, in all probability, the contagious or non-contagious nature of typhus is dependent, partly on the quantity or concentration of the effluvium thrown off from the body, and partly upon the closeness or openness of the patient's apartment. Or we should prefer saying that typhus fever is in its nature contagious, but that the chance of its propagation from individual to individual is greatly dependent on the above-mentioned circumstances.

We are sorry that the limits of a periscope will not permit us to present a full analysis of Dr. Armstrong's ingenious paper. We recommend a careful perusal of the original to our readers.

While we cannot bring ourselves to coincide entirely with Dr. Armstrong on certain etiological points, we differ from him with great diffidence, because we hold his talents and character in the highest respect and esteem.

While on the subject of typhus, we may allude to a curious account of a "sporadic abdominal typhus," described by our young friend, Dr. Autenrieth of Vienna, in a late No. of the *Edinburgh Journal*. This disease, which he thinks has not been noticed by authors, chiefly attacks people in the higher classes of life, and generally occurs either during, or shortly after the years of puberty. The symptoms are nearly the same as in the low and insidious forms of common or contagious typhus; but it arises without contagion, and the seat of the complaint is the nervous system of the abdomen rather than the brain. "A vomiting, followed by a dull pain between the stomach and navel, is quite characteristic," of this abdominal typhus. From the minute detail of symptoms, the disease does not appear to happen often in this country. In Dr. Autenrieth's own case, the complaint lasted three months. In the dissection of patients who die during the abdominal stage of the fever, that is, from the 11th to the 17th day, "there is found a peculiar inflammatory state of the nerves, principally those of the abdomen." An exudation of reddish serum was observed along the fasciculi of nerves, and the medullary substance itself was penetrated by a dark-coloured cruor. The stomach and intestinal canal, at the same time, exhibited rose-coloured inflamed spots. If the patient dies at a later stage of the disease, the usual appearances seen in common contagious typhus, will be then observed. If the above phenomena, especially as regards the abdo-

paper in the 72d No. of the *Ed. Journal*, p. 385. An athletic soldier caught fever, in Ireland, but the source of the disease could not be ascertained. While bleeding the patient one day, he breathed full in our author's face, and the impression was particularly disagreeable. He predicted that in eight or ten days he would have fever. He was seized on the ninth day, and nearly died of fever. The soldier's wife came to see her husband, and was seized on the tenth day from her arrival. Five other soldiers, who occasionally visited this man, caught the fever. We think these are pretty authentic proofs of the existence of contagion.—*Rev.*

minal nerves, be correct, and we know Dr. Autenrieth to be a young gentleman of great probity and talent, then we must cultivate neurotomy more than we have done, while prosecuting our pathological researches.

2. *Reunion of entirely separated Bone.** The statements of Bal-four and others leave no doubt, we imagine, in the minds of medical men, that soft parts, and soft parts containing bone, have been reunited after complete separation from the body; but we do not remember ever to have read of the reunion of denuded and detached bones. The present instance, therefore, is curious, and may be useful both in a physiological and surgical point of view.

Professor Walther having trepanned a dog and returned the disc of bone to its place, found that it united with the corresponding edges of cranium. Soon after this, a mason, addicted to spirituous liquors, received a blow, by a stone, on the head, which produced moderate symptoms of concussion, that were treated in the usual way. The accident, however, was succeeded by such pains in the head, as induced the man, after trying various remedies, to beg for the operation of the trephine to be performed. Professor W. consented, and a disc of bone was removed, but the dura mater was found healthy. The bone, after being deprived of its periosteum, was returned, and the integuments drawn over it. The febrile symptoms were moderate, and the signs of meningeal inflammation by no means severe. Reunion of the integuments did not take place—suppuration ensued—the discharge continued some months—and the patient found himself better of his headaches, which gradually diminished, and ultimately disappeared. At the bottom of the wound the osseous disc could be felt loose. Professor W. thinking at the end of the third month, that it ought to be removed, seized it with the forceps, but was surprised to find that, instead of bringing away the bone entire, a thin, angular, and ragged portion, consisting only of part of the external table, was removed. The inferior surface of this portion was rough and unequal—one of its margins round, the other pointed and serrated—in a word, the vitreous table of the separated disc, and a part of the external lamella, were reunited; while the larger portion of the latter was exfoliated. On attentive examination of the bottom of the wound by the probe, “the original parietal opening was found thoroughly closed, and filled by osseous matter, hard, and covered by healthy granulations.” Professor W. justly concludes that, as exfoliation and granulation could only take place in a part where there was an active state of its vessels, so it was evident that the reunited portion of bone retained its vitality, and, in this case, formed vascular connexions with the dura mater, and with the diploe, thus becoming subject to the usual processes of nutrition and vascular action. The wound gradually healed.

* Professor Walther of Bonn. See Med. Repos. 102.

3. *Metastasis.* Among the various means by which Nature carries off noxious matters from, or prevents morbid processes in, the system, there is one, which is generally considered an evil at the time.

——— pauci dignoscere possunt
vera bona.

This is a foetid perspiration from the feet. There are many examples on record where attempts to restrain this disagreeable secretion have been followed by bad consequences. Raymond informs us, that a nun had long been afflicted with a purulent discharge from the eyelids, which, at the age of 22, changed to copious and foetid sweats from her legs and feet. While she submitted to this inconvenience, her eyes continued strong and healthy. At length, however, these foetid perspirations became very disagreeable to herself and her associates, and, therefore, she bathed her extremities in astringent lotions, which arrested the cutaneous discharge, but brought on epilepsy, which continued, with intervals, for three years. The epilepsy now disappeared, and the patient became affected with scrofulous swellings in the neck and axilla. From these parts, there was ultimately a translation to the lungs, of which the patient died.

Reydellet records several instances of nearly a similar nature, and Dr. Thomas Harris, in an interesting paper on metastasis, published in the 17th No. of our very respected cotemporary, the *AMERICAN MEDICAL RECORDER*, has related a case, the particulars of which we shall here introduce to our cisatlantic readers. Dr. H. was called to a lady, in March last, affected with severe pain in the back and head, with great depression of spirits, and occasional symptoms of hysteria. She was treated by our author for nearly a month, without experiencing any relief. About this time, she informed Dr. H. that she had lately gotten rid of an old companion (as she termed it) which had been extremely offensive to herself and her friends—namely, a copious and foetid perspiration about the feet, which had succeeded a scrofulous swelling in the groin of long standing. These perspirations had continued three years, during which she enjoyed uninterrupted health, until lately, that she had caught cold by getting wet feet. Our author very judiciously took the hint, and prescribed pediluvia, the vapour bath, and emollient poultices. The foetid sweats returned, and with them, good health and spirits.

The study of metastatic affections, both in a pathological and therapeutic point of view, is not sufficiently attended to by modern practitioners. We agree with Dr. Harris that it should be laid down as a rule of practice in every chronic disease—"to favour a metastasis to the surface." When the disease exists in the cutaneous expansion, it will be no less the duty of the practitioner to guard against a translation from that to an internal structure.

4. *Axillary Aneurism.** Our surgical brethren are well aware how few successful cases (or even attempts) there are on record of the kind now before us. We conceive that next to the aorta itself, the subclavian artery is the least accessible to the ligature, especially in the living subject, and where disease has deranged all the relative position of parts. Mr. Todd is entitled to the greatest praise for his intrepidity and dexterity in an operation of such tremendous difficulty and danger.

The patient (John Dundas) was 53 years of age when he entered the Richmond Hospital, on the 21st of January of the present year. He stated, that he had been uniformly healthy and temperate till early in June, 1821, when he felt a stiffness and numbness in two of the fingers of the right-hand, which, in a month, was attended with inability to close the fingers. The hand then, and ultimately the arm, became œdematous. In October of the same year, he perceived a small tumour in the axilla, which rapidly increased, attended with weight, pain, and pressure. He went first into the Fermanagh Infirmary, and from thence was transported to the Richmond Hospital. The aneurism, at this time, not only distended the axilla so as to cause the scapula to project considerably backwards, but it was very prominent anteriorly—its base extending upwards to the clavicle—inwards to the edge of the sternum—downwards to the nipple of the breast—and on the side of the thorax, to the upper edge of the sixth rib. The tumour was tense, elastic, and pulsating—the skin feeling stretched upon it, but not discoloured—slight pressure did not give pain; but the patient complained of deep-seated uneasiness. The whole extremity was œdematous, and the elbow separated to a great distance from the side. No pulsation could be perceived in the radial or ulnar artery of the diseased limb, but there was little diminution of animal temperature.

On the 25th of January, the pain of the arm was so intense, and the size and pulsation of the tumour so much increased, that venesection and opiates were necessary. No permanent advantage being gained by any means pursued, it was determined to have recourse to the operation, which was performed on the 8th of February, in the presence of several surgeons of the Irish metropolis. We deem it proper to give the steps of the operation in Mr. Todd's own words.

“ The patient was placed on a table, lying on his back, with the upper part of his thorax somewhat raised; his head and neck inclined to the left, and his right shoulder as much as possible depressed by an assistant steadily drawing down the arm of that side. A slightly curved incision was made through the common integuments across the lower part of the neck, commencing about two inches above the acromial, and terminating half an inch above

* A Case of unusually large aneurism of the right Axillary Artery; in which the Subclavian Artery was tied. By CHARLES H. TODD, Esq. Senior Surgeon to the Richmond Surgical Hospital. Octavo, p. 13. Dublin, 1822.

and to the outer side of the sternal extremity of the clavicle. The convexity of this incision was downwards, so that by a little dissection of the integuments upwards, a small flap was made, which afforded ample room for the subsequent stages of the operation; and evinced the inutility of a more extensive, or a more complicated division of the skin.

"The next part of the operation consisted in dividing the platysma myoides, fascia, and subjacent cellular tissue: this occupied a considerable time, in consequence of the great number of veins which it was found necessary to secure with ligatures. The external jugular, and two or three other superficial veins were easily secured, but a series of more deeply seated veins proved extremely troublesome; one branch of these in particular poured out blood in an alarming quantity, and receded so much within the layers of the fascia, that I was at last compelled to use the needle, and to include in the ligature the portion of fascia with which the divided vein was connected.

"I feel it incumbent on me here to state, that this profuse discharge of venous blood was chiefly the consequence of the veins having been divided too near the large trunk into which they opened; the blood therefore flowed freely in a retrograde direction from the subclavian vein into them, and issued from their inferior orifices; the bleeding from their superior orifices was inconsiderable and easily controlled. To have tied these veins individually before dividing them would have been an undertaking both tedious and difficult to execute, for they constituted a most intricate plexus of convoluted vessels imbedded in cellular tissue and layers of fascia.

"The venous hemorrhage having been at last effectually suppressed, I proceeded to search for the omo-hyoideus muscle: so much however was the relation of parts altered by the magnitude of the tumour, and consequent elevation of the clavicle, that the portion of this muscle expected to be brought into view in this stage of the operation, was situated more than an inch below the clavicle; and it was found necessary to draw it up from its concealment, and to cut it across, that the subjacent parts might become accessible.

"Having applied my finger to the edge of the scalenus anticus, I was directed by it to the situation of the artery; but at this juncture causes of further difficulty arose, chiefly from the great depth of the wound, and the doubt which the almost total absence of pulsation in the artery naturally excited in regard to its identity. It is necessary however to observe, that this obscurity in the pulsation of the subclavian artery was by no means referrible to the debility or exhausted state of the patient, but probably depended on the vessel having been flattened upon the first rib by the degree of extension to which the aneurismal tumour in the axilla had subjected it.

"For some time I could not be convinced that the feebly pulsating vessel, to which the point of my finger was applied, was really an artery of such magnitude as the subclavian; and aware of the disappointments which others were reported to have sustained in

this operation,* I resolved to satisfy myself and my assistants upon a point of so much importance, before a ligature should be applied. The depth of the wound rendered it impossible to see to the bottom of it; accordingly, I kept the point of my left fore-finger on the vessel, and cautiously detached it from its connexions with the blunt extremity of a director: having then introduced the fore-finger of my right-hand also into the wound, I succeeded in compressing the vessel between the ends of my fingers, when the pulsation of the tumour immediately ceased, returning when the pressure was discontinued. This expedient was conclusive, and, for obvious reasons, more satisfactory than that of pressing the artery downwards against the first rib.

" From the unusual degree of displacement of the clavicle, it was expected that great difficulty would have arisen in the application of the ligature to the artery; I was therefore provided with the several instruments which have been recommended to facilitate this step of the operation, however none of these were employed, as the object was speedily effected with common aneurism needle. At first I attempted to pass the needle in front of the artery, with the view of giving every security to the vein; to this the position of the clavicle constituted an insuperable obstacle; I therefore directed the needle along the margin of the scalenus, and then insinuated the point of it under the artery from behind, guarding the vein with the fore-finger of my left-hand, until the point of the needle was sufficiently elevated. I was then enabled to seize the ligature with the extremities of my fore-fingers, which I had introduced into the wound, nearly in the same manner as when compressing the artery, and the needle being held by an assistant, one end of the ligature was drawn out anteriorly, and the needle was removed.

" The artery then lay upon the ligature; and I requested that my assistants, and such other professional gentlemen as could conveniently approach the table, should convince themselves of this fact, by making the most accurate examination. The knot was now tied, and a sufficient tightness ensured by the ends of the ligature having been passed in the ordinary way through the *serre-nœud*. On the ligature being tightened, the pulsation of the tumour entirely subsi-

* See Sir Astley Cooper's case in *Lon. Med. Review*, vol. II. and Dr. Rutherford's account of M. Dupuytren's unsuccessful operation at the Hotel Dieu, in *Edin. Med. and Surg. Journal*, No. 63.

"An eminent English Surgeon, then on a professional tour, was present at M. Dupuytren's operation and dissection, and favoured me with an account of them, which corresponds with that given by Dr. Rutherford. In the same letter, (dated June 21. 1819,) he states that, 'three days since a surgeon of great celebrity attempted this operation, on a most admirable subject, and in an early stage of axillary aneurism, but he could not even find the vessel, and abandoned the operation.'

"Mr. Samuel Cooper informs us, that one of the cervical nerves may be mistaken for the subclavian artery, in consequence of the pulsation of this vessel being communicated to all the adjacent parts; and that he has seen a mistake of this kind actually made by very skilful surgeons.—*First Lines of the Practice of Surgery*, vol. I. p. 319."

ded ; its tension was considerably diminished, and the patient felt an increased degree of numbness of the arm ; the external wound was then dressed, and he was laid in bed with the limb supported on a pillow by his side." 9.

The patient did not appear much exhausted, notwithstanding the loss of venous blood during the operation. At night an opiate was administered, and, for the first time since his admission into the hospital, produced tranquil and refreshing sleep. On the following day, there were no alarming symptoms, and the tumour was obviously diminished. There was some dyspnoea towards the evening, which was relieved by venesection: These attacks of dyspnoea recurred frequently, and frequently required bleeding and digitalis, with aperient medicine. The symptomatic fever which succeeded to this painful operation, was inconsiderable. On the 14th of February the wound was dressed for the first time, and the sutures removed. On the 15th, several ligatures came away—the discharge being small and healthy. The œdema of the limb had greatly subsided—no pulsation could be distinguished in any of the arterial trunks—the temperature of the limb had continued at 96°—the pulse at 92°. We cannot pursue the diurnal reports. On the 3d of May, when the paper closes, the man's amendment has been most satisfactory;—the tumour is still further reduced, and he is gradually regaining the power of the muscles which move the arm on the scapula. The joints of the wrist and fingers have lost much of the unnatural laxity, and the integuments of the hand no longer possess the diseased appearances reported on the 20th of March."

We need hardly say, that this operation exhibits one of the most splendid triumphs of modern over ancient surgery. It must be received as a strong testimony in favour of the expediency of tying the subclavian artery, even under circumstances of peculiar difficulty and danger.

5. *Malignant Ulcer of the Prepuce.** Mons. L. 23 years of age, came under M. Dubois's care, presenting the following symptoms :—the prepuce was much enlarged and indurated ; and, on the inferior part, was a large, deep, and eroding ulcer, which penetrated to the glans penis with rugged edges of a violet colour, and violent lancinating pains. The disease had resisted various antisymphilitic modes of treatment, including mercury taken by the mouth. The ulcer was dressed with anodyne applications, and although the patient was very weak, he was immediately put on a course of mercurial frictions. Bitters, the cinchona, and antiscorbutics were administered internally. Between the 12th and 15th days, the salivation became established, and quickly became inordinate, his tongue, lips, and whole face being greatly swelled. The ulcer instantly put on a healthy appearance and was soon healed. The cure was complete.

* M. Dubois. *Annuaire Med. Chir*

Our readers will recollect, that in our last Number, we mentioned a case of sloughing chancre arrested in its course by mercury.

We have received several communications lately, corroborating the good effects of similar treatment.

6. *Oil of Turpentine*.* Dr. Gibney thinks, that this medicine has not been so liberally prescribed as it deserves. In his practice, at least, it has proved as efficacious in the ascarides, vermiculares, and lumbricoides, as in the tænia. In small doses, he thinks, the effects of the medicine will probably be felt where they are least wished—in the kidneys, or skin, for instance. A small quantity will rarely act on the bowels, and there is not so much to be dreaded from a large dose as people imagine. "There are few children of three years of age, who will not bear from one to three drachms, given at intervals." To those more advanced in years, we may order from three to six drachms. To adults, of course, it may be given on a still more extensive scale. It should, Dr. G. observes, be given as little combined with other medicines as possible, and always on an empty stomach, in doses repeated at short intervals. Our author's method is, to order a good dose early in the morning, and repeat it every hour for three or four hours, as the strength of the patient, or the presence of the disease may indicate. Although food of any kind should be prohibited at the time, yet it may be necessary to allow the patient to drink warm tea, or acidulated barley water, to allay his thirst. Should the medicine prove slow in its operation, a little castor oil, taken a few hours after, may be serviceable. Our author mixes the oil of turpentine with some mucilage, cinnamon water, and syrup. The addition of a few drops of some essential oil, or warm aromatic tincture will sometimes be useful. In some instances, the disease yields to a single dose of the remedy, and the stools assume a natural appearance—in others, a more prolonged course is necessary. "In all cases, however, it will be advisable to continue the medicine (observing an interval of three, four, or five days between the regular doses) for some time after we have reason to suppose the worms have been destroyed." The permanent healthy appearance of the alvine discharges will, he thinks, be a tolerably faithful index upon this point. Dr. Gibney illustrates the foregoing rules by a sufficient number of appropriate cases, selected from his practice. These we need not notice here.

7. *Chronic Rheumatism*.† The datura stramonium grows very plentifully in almost every section of the United States. Dr. Z. has been in the habit of using this medicine in the form of tincture and

* Dr. Gibney. Ed. Journal, No. 73.

† Dr. Zollicoffer. Amer. Med. Recorder, No. 17.

ointment, in cases of chronic rheumatism, with (he says) much advantage. His formulæ run thus ;

TINCTURE.

R. Sem : Daturæ Stram : 3j.

Spir : Vini Tenuis Oss.

Mix and macerate for seven days, then strain, filter, and add to it the following articles :—Ol. pulegii, gt. xx. ol. cinnam. 3ss. tinct : opii, 3j. spir. vini camph : 3ij. This compound tincture of stramonium, he says, will be found a most valuable stimulant and rubefacient application in a variety of cases, in which camphorated spirits and other liniments are employed externally.

The ointment is made by simmering an ounce of the flowers of stramonium, with four ounces of lard, and an ounce of white wax.

It is particularly in chronic rheumatism that our author has used the tincture, exhibiting it internally, morning and evening, commencing with about eight drops, which can safely be increased two or three drops occasionally, until the patient is sensible of its producing vertigo, when the medicine is to be suspended for a time, and, if thought necessary, recommenced again. The tincture and ointment may also be externally employed. Purgatives should be exhibited during the use of these medicines.

8. *Congenital Dyspepsia*.* The editor of one of those numerous periodicals which, in their turn, have strutted their hour upon the stage, and then retired—some with plaudits—some with hisses—but most of them in solemn silence, has again appeared to vindicate some antiquated claims in surgery and midwifery. With these we have no concern ; but, an appendix is added, on the subject of what the writer denominates, “ *Congenital Dyspepsia*,” or, in other words, that idiosyncrasy of *stomach*, from which few are entirely free, and through the influence of which, we account for those antipathies to certain kinds of food, or the disagreement of certain articles with the stomach, however much they may be relished by the palate. By way of illustration, the writer first relates his own case. Till the age of twenty, he was much in the habit of using *milk*, once or twice a day, as an article of food. He was then often afflicted with acidities in the *primæ viæ*, pains in the stomach and bowels, flatulence, nidorous or greasy eructations, and other accompaniments of indigestion. In point of general health, however, he was very well. Experience at length taught him, that every alimentary article, into the composition of which either milk, cheese, or egg, entered—nay, even poultry or young pigs, fed on milk and barley meal, had the effect of deranging the functions of his stomach and bowels. The idiosyncrasy ascertained, the cause

* *Medical and Surgical Spectator*, additional, 1822.

of these symptoms was avoided, and the effects altogether ceased. He can renew them—we were going to say, *at pleasure*—by taking a bit of cheese or a basin of milk, to this day.

When dyspeptic patients are otherwise in good health, our author suspects that this congenital dyspepsia or idiosyncrasy is at the bottom of the mischief; and unless the offending article be ascertained, all medicine will be unavailing.

The author next introduces the case of a medical friend, and in the Doctor's own words. Of this case, which is not devoid of interest, we shall here present an outline.

Dr. ———, *ætat.* 35, subject to dyspepsia, and constipation of bowels, attended at times with considerable pain in the abdomen, complained, in October, 1809, of almost constant pain in the lower part of the belly, with such an increase of the constipation, that laxatives, and even the bath-water injections, with difficulty cleared the bowels of hardened scybala. He continued in this state during the whole winter, with the exception of a week or two, after taking blue pill to affection of the mouth, during which short period, he also had regular stools. The complaint, however, returned, and the *pilula hydrargyri* had now no effect. Various remedies were tried in succession, but no relief was obtained. This was his state in November, 1810, when, at the suggestion of the writer, he altered his diet, by substituting oatmeal gruel for milk, which last he had used freely for several years. He soon became free from pain: and although the bowels did not immediately perform their office properly, a very trifling laxative medicine was necessary. He now recollected that during the interval of ease which he enjoyed in the spring, he took whey at breakfast instead of milk.

Congenital dyspepsy, our author observes, is not confined to milk, eggs, or cheese, for its cause. One person shall be rendered dyspeptic by eating corned beef, another by an apple, and so forth—every individual has his peculiarity of temperament, and his gastric idiosyncrasy. We think these hints of the "*Medical Spectator*" not undeserving of professional attention, and we shall be glad to see another gazette extraordinary from the same source.

9. *Hernia*.* According to Mr. Lizars, all that we have learnt in the dissecting room respecting inguinal and crural hernia, "is of no avail," when we come to operate. This is a melancholy reflection; but we trust Mr. Lizars's assertion is not quite correct. We know well indeed that living and dead anatomy are two very different things; but still we venture to affirm, that the knowledge gained in the dissecting room is useful in the operating room. If not, why does Mr. Lizars continue to lecture and demonstrate?

We agree with Mr. L. that, in general, when we are cutting down, in the living subject, on a strangulated hernia, we look in vain for the distinctions between fasciæ which may be demonstrated in the dissecting room—or rather we should say, that we shall find more fasciæ than we expected, and that inflammation often converts common cellular tissue into apparent laminæ of fascia. We agree with Mr. Lizars in another point, namely, the difficulty of distinguishing between crural and inguinal herniæ in women. In an early period of our professional career, we lost a sum of money by betting with a colleague that a hernia, of which an old woman died, was of the inguinal kind, when dissection showed it to be crural. We have, since that time, seen some able surgeons puzzled, and even deceived on the same subject. It appears from Mr. Lizars, that, instead of advancing in the knowledge of inguinal anatomy, we are retrograding. "Work after work," he says, "has been published on the subject, and the more and more confused and intricate are the descriptions." Vesalius, Eustachius, Cowper, Albinus, Douglas, all have erred—and the anatomy of Hernia "may be pronounced the arcanum of surgery." From this disconsolate representation we gladly turn to a prospect more cheering—that of curing herniæ (reducible) in men, women, and children, without any surgical operation at all. It is well known that the skin and other textures of an animal, when dead, are hardened and strengthened by tanning—why not tan them alive? The idea has been long acted on, as far as the stomach is concerned. That organ we are daily in the habit of tanning with bark, steel, astringent wines, &c. The transition was very natural to the parts through which a hernia descends. For many years past our author has used for reducible herniæ "a strong decoction of oak bark with *wonderful* success." Now, although we do not deny that the success might be *wonderful*, yet we do not like the expression, "wonderful success," from the mouth of a regular surgeon. Be that as it may, we think the proposal, as it is perfectly harmless, is well worthy of a trial, and we freely contribute to make the measure extensively known. A few pounds of oak bark are to be macerated in a sufficient quantity of cold water, for twelve or twenty-four hours, and then the bark and solution must be put into a larger vessel, and kept at the boiling temperature over a gentle fire for two or three days, adding, when required, boiling water, from time to time, so that the bark may be always covered. The solution should be ultimately strained, and evaporated to the consistence nearly of an inspissated juice. When used it should be warmed, to suspend the astringent matter. The hernia being previously reduced, the groin is to be bathed with the decoction, and the truss applied, three or four times a day. Mr. L. has cured hernia of many years standing, in this way, in the course of a few weeks. In general, however, it requires a perseverance of three months. This invaluable remedy was first mentioned to our author by a merchant, who cured himself after having laboured under the disease for many years.

In conclusion, we are exceedingly sceptical as to the *tanning pro-*
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cess on the living tendinous expansions composing the apertures through which herniæ protrude.

10. *Inguinal Hernia, attended with peculiar circumstances.** John Morize, a young lad of eighteen years, entered the MAISON DE SANTE with strangulated inguinal hernia of the right side, which had continued thus three days. When admitted, there were acute pains in the inguinal region—tension of the abdomen—violent colic—bilious and stercoraceous vomitings, hard pulse, and flushed face. Such threatening symptoms demanded the operation immediately, and it was performed on the spot. As soon as the sac, which was very thin, was opened, a knuckle of intestine presented itself of a deep brown colour, and with several livid spots, some as large as the finger nail. On the right side of the knuckle of intestine was observed a round, smooth, and brown-coloured protuberance, about the size of a nut. The ring being divided, the intestine was returned with the greatest care and caution: in doing which, the little tumour above-mentioned burst, and discharged full two table spoonfuls of black blood, thick and fetid. Morize was now put to bed, and diluent beverage prescribed, together with emollient lavements twice a day. Nevertheless, the abdominal pains continued, together with the stercoraceous vomitings, and obstinate constipation. On the second day, in addition to the above symptoms, the pulse was feeble, the look fixed, and the features decomposed. On the third day, when every thing indicated a fatal termination, the alvine evacuations appeared—the vomitings ceased—sleep supervened—and all the bad symptoms quickly vanished.

It would appear from the foregoing case, that the strangulated portion of intestine had suffered so much in its vital powers, and even physical structure, as to be a long time in regaining its proper functions after the stricture was removed. The case, while it offers no ground for delaying the operation beyond a reasonable period, holds out a hope that, even when at a late period, the operation may be successful, as nature has great restorative powers in reserve for emergencies like the above.

11. *Emetics in Constipation.* Dr. Hosack, of New-York, has published some observations on this subject, which we shall briefly notice. In the year 1796, Dr. H. communicated to Dr. George Pearson of this metropolis a remarkable instance of constipation of the bowels yielding to blood-letting and the exhibition of mercury to ptyalism, after the disease had continued twenty-one days.

“ Reflecting upon the manner in which mercury operates in relieving cases of this nature, after the gums have become affected, it

occurred to me that the action of this metal is not only by its effects upon the secretions in general, but more especially upon the biliary organs. The dark-coloured and acrid discharges that succeed to this operation of mercury, appear favourable to this explanation. In like manner, the general derangement of the digestive organs, the foul tongue, the offensive breath, the sallow complexion, that usually precede and attend upon the first stage of this disease, no less point to this obstructed and torpid state of the liver, as having great agency at least in predisposing to the disease in question, while a check of the perspiration, and certain articles of diet, are not unfrequently the exciting causes of irritation, and of the spasm and inflammation which ordinarily constitute an attack of this complaint. With these views I was led to the use of emetics, as best calculated to remove the hepatic obstruction which appears to lay the foundation of this disease, while by their febrifuge and antispasmodic operation they are no less useful in removing the fever, the inflammation and constriction that constitute some of the most distressing, as well as dangerous symptoms, that attend a constipated state of the belly." *Med. Repos. No. 103, p. 78.*

Dr. H. proceeds to relate several cases in illustration, of which we can notice but one or two in this place.

Case 1. Mr. W. B. had been relieved by mercury in severe constipation on a former occasion, but was now again seized with obstinate obstruction of the bowels. His countenance was sallow, his tongue furred, breath offensive, stomach disturbed, but the arterial system tranquil. An emetic of tartarized antimony operated freely, producing a general relaxation of the system, and discharging by vomiting dark-coloured viscid bile, that appeared to have been long pent up. Copious evacuations by stool succeeded, and the patient was instantly relieved.

The second case was that of a merchant, who had been several times previously relieved of dangerous constipation by mercury, and who was lately visited by a severe attack of the same kind. Dr. H. found pain and violent constriction of the bowels, small pulse, sallow and livid countenance. He gave him fifteen grains of hippo and two of emetic tartar. The medicine operated freely both upwards and downwards, and the patient was immediately relieved. The other cases are nearly of a similar nature to the above, and need not here be detailed. We shall, however, introduce to our readers Dr. Hosack's conclusions from the above and other facts which he has stated.

" ' 1.—That a constipation of the bowels is naturally attended with, and frequently produced by, a torpid state of the liver, and consequent deficiency of the biliary discharge.

" ' 2.—That the pain, spasmodic constriction, and inflammation, attendant upon this disease, are the result either of the mechanical obstruction occasioned by the deficiency of bile, and consequently, a retarded peristaltic movement of the intestines, or the effect of a sudden change of perspiration, or of a particular article of diet.

“ 3.—That in the commencement of constipation, or in its more advanced stage, when the symptoms of inflammation have been subdued by the lancet, emetics may be very advantageously exhibited, both for the purpose of removing the hepatic obstruction, and of counteracting the spasmodic constriction and pain ordinarily attendant upon this disease.

“ 4.—That the salutary effects which have been occasionally derived from injections of tobacco smoke, are attributable to the general relaxation, the nausea, and, in some cases, the vomiting, which that narcotic produces.

“ 5.—That the benefits that have, in like manner, been obtained in some cases from the use of tartarized antimony, administered by injection, are to be accounted for by the nausea and vomiting that have been the effects of its operation, but which are to be obtained with more certainty from the same medicine given by the stomach, and to the extent of full vomiting.

“ In like manner, inasmuch as a torpid state of the liver and a diminished secretion of bile are generally known to constitute a part of the proximate cause of dysentery, we obtain a satisfactory solution of the salutary operation of injections of ipecacuanha in that disease, as advised by Dr. Thomas Clark; but which effects are more certainly to be obtained from the use of ipecacuanha given by the stomach, as prescribed by Sir John Pringle, or of tartarized antimony, as recommended by Senac.’ ” P. 81.

There can be no doubt that a deranged function of the liver is very often a cause of constipation as well as of several other affections of the intestinal canal; but we cannot help viewing Dr. Hosack's theory as rather too exclusive. We do not see, however, any material objection to the practice recommended by Dr. H. Indeed, we have long been convinced, and have often stated our conviction in this Journal, that the judicious and timely exhibition of emetics is too much neglected in modern practice—purgation appearing to absorb the attention of the physician almost exclusively.

12. *Belladonna*.* Mr. Thompson has made some observations on belladonna in neuralgic affections, and related two cases in illustration. The dose of this medicine, he thinks, should seldom be less than two grains of the pure extract—and sometimes, when pain is excessive, three or four grains, repeated at intervals of five or six hours, till its effects are manifested, may be necessary. The observation of Haller, however, must be borne in mind, that permanent blindness has resulted from the use of belladonna. Its effects on the system therefore should be carefully watched. The first case related by Mr. T. was that of a lady, who became affected with excessive pain in the centre of the left tibia, which would continue

* Mr. Ed. Thompson. Med. Repos. 103.

a few hours, then abate, and at length cease. Nothing was apparent in the limb, nor did pressure occasion any pain. She tried a variety of internal and external remedies without any benefit. She was desired to take two grains and a half of extract on an empty stomach. The consequent vertigo, faintings, and dimness of sight, were such as to keep her in bed all the next day. For thirty or forty hours she could not raise her head from her pillow, without experiencing a strange and disagreeable sensation. The pain of the leg left her, however, and did not afterward return.

In the second case, a gentleman had been seized in March with racking pains in the gum of the left side, extending along the face, for which a tooth was removed, without producing any relief. He was leeches, blistered, and took opiates, without benefit, and then another tooth was extracted, but still the pain continued. Two grains of the extract of belladonna were given, and repeated. The four grains produced slight delirium, and great vertigo. These symptoms soon left him, and the pain returned no more.

13. *Over Dose of Opium.** On the 2d of March, 1794, a Mogul gentleman swallowed about 150 grains of opium, and was found, in less than an hour, in a state resembling profound intoxication—his skin of a red inflamed colour—all the veins greatly distended. When roused a little, he complained of an intolerable itching all over his skin—pulse from 70 to 80, full and soft. Fifteen grains of sulphate of zinc were administered, and ten grains more every ten minutes. This produced but slight vomiting. Fifteen grains of the zinc were then given every ten minutes, till full vomiting was effected. He took in all 125 grains of the sulphate. He quite recovered. Vegetable acids were given after all smell of opium disappeared from the ejected matters.

14. *Venereal Affection of the Heart.†* Convisart and most of the French pathologists insist on it that the venereal virus falls occasionally on the heart, and there evinces itself particularly in the form of syphilitic excrescences, or vegetations on the valves of the organ. We have met with three cases of this kind, in middle-aged men, but where there was no evidence, at the time of their death, that they had laboured under incompletely eradicated syphilis. Still, as M. Dubois observes, the *causes* of a disease may be removed, but the *effects* may long remain. The following case is in point.

“ Claude Francois, a jeweller by trade, aged 34 years, entered the MAISON DE SANTE on the 18th October, 1818, presenting the

* Dr. A. Kennedy. Ed. Journal, No. 72.

† M. Dubois. *Annuaire Med. Chirurg.*

following phenomena :—moderate pyrexia—cerebral functions undisturbed—respiration laborious—abdomen somewhat tumid—pulse irregular—tongue white—countenance pallid—lower extremities œdematous—skin of the forehead, chest, and back covered with a pustular and crustaceous eruption, which, in our author's opinion, indicated the existence of syphilitic virus in the system. The state of the patient forbade the use of mercurials, and therefore only aperient drinks were prescribed. The breathing now became hourly more and more difficult—the patient could not lie down—the thorax, on percussion, emitted a sound indicative of effusion—the heart beat over a great extent of surface, which indicated lesion of that organ. He died on the ninth day after entering the hospital.

Dissection. Both cavities of the chest contained serous effusion—heart considerably enlarged—parietes of the left ventricle thrice their natural thickness, but soft and flabby. Both the mitral and tricuspid valves were fringed with numerous venereal vegetations, of different sizes. Auricles natural.

When, to the more common symptoms accompanying organic affections of the heart, we have added irregularities in the pulse, we have always found it a very unfavourable omen, as it almost invariably indicates *valvular* disease—the worst species of cardiac lesion. We were lately in attendance on a dreadful case of this kind, with Dr. Farre, Dr. Walshman, and Mr. Browne, a very able practitioner of Camberwell. The symptoms were such as above described, with the addition of a tremendous regurgitation into the internal jugular veins, which pulsated like immense arteries. The struggle of the patient with this fatal disease was long, and afflicting to himself and friends. At length he sunk from hydrothorax, and serous effusions in all parts of the body.

15. *Tobacco in Phlegmasia.** Dr. Page has related three cases of phlegmasiæ, where nicotiana in clyster was employed as an auxiliary; but it is only on the first case we shall animadvert. A woman of plethoric habit was seized with pneumonia, and after bleeding, blisters, and a dose of salts, she has an opiate draught given her at night, notwithstanding great dyspnœa. This practice was persisted in, and we have no hesitation in saying it was bad practice. Antimony should have been given, as the grand auxiliary to venesection, and this would have done all that the tobacco clysters effected, in a far more safe and manageable manner.

16. *Flux of Blood from Hepatic Enlargement.†* Dubuc, a

* Dr. Page. Ed. Journal, No. 72.

† M. Husson. Annuaire Med. Chirurg.

watchmaker, 45 years of age, of pale complexion, but formerly in good health, had had a fall on the right side against a hard substance, since which time (three years ago) he has felt occasional pain in the region of the liver. He entered the HOTEL DIEU on the 26th August, 1815, complaining of pain in the abdomen, the liver being evidently enlarged, and projecting beyond the false ribs. There was constipation of the bowels, dryness of the skin; but no fever. Leeches were several times applied to the anus, with diluents—sedatives—warm baths. On the 31st August, the patient began to pass considerable quantities of blood by stool, of a black colour, and mixed with some fecal matters of stercoraceous smell. This evacuation rendered the abdomen less painful, as well as the immediate region of the liver, which became less tense and prominent.* These favourable symptoms led to the further application of leeches to the fundament, with diluent drinks, and emollient lavements. The discharge of blood continued about a week, when it ceased; the patient experiencing pains in the region of the liver only occasionally. The constipation of bowels obliged him to have recourse to lavements twice or thrice a day, in default of which the abdomen swelled, and the right hypochondrium became painful. By degrees the patient regained his strength—the constipation of bowels gave way—the stools became natural—the complexion more healthy. By the end of September the patient was discharged cured.

We shall take frequent opportunities of impressing on the minds of our brethren in this country the necessity of paying more attention to anal leeching, and the introduction of enemas in their practice. We are quite convinced, that in neglecting these measures we deprive ourselves of powerful auxiliaries in the treatment of diseases.

17. *Luxation of the Hip-Joint.*† Dislocation of the larger joints occasionally happen in places where we have but slender assistance, and simple mechanical means of reduction. It is therefore well to be acquainted with those instances where the reduction has been effected without the aid of machinery, as in the following case. On the 28th of January, 1822, a soldier, 38 years of age, of very robust habit, was violently run against and upset by a stagecoach, in turning one of the streets of Paris. He was with difficulty got into a cabriolet and conveyed home, where M. Devilliers immediately saw him, and recognised a luxation of the thigh-bone, by the

* This verifies the ancient medical precept in Serenus Samonicus.

"Si modicus plenus manat de corpore sanguis

"Subvenit:—at nimius cum vita funditur ipsa."

Serenus Samon. de Med. Præcept.

† M. Devilliers. Journ. Gen. de Medecine, Fevrier, 1822.

following signs, viz. remarkable shortening of the member—rotation of the toes outward—the knee abducted beyond the median line—a tumour in the right groin near the pubis—a depression in the situation of the cotyloid cavity—inability to place the limb in its natural posture. These signs indicated a dislocation upwards and inwards of the head of the femur.

At this time there was only one person in the house capable of rendering the surgeon any assistance, and the latter was loth to lose time by sending for assistance elsewhere. Causing this person then to take a firm hold of the patient's foot, he bent the knee, and grasping the ham with his right hand, he placed his left on the site of the tumour in the groin. Thus situated he gave the thigh bone (that is, the knee) a sudden rotatory movement inwards, upwards, and forwards, while counter-pressure was made on the tumour, or opposite extremity of the femur. The head of the bone instantly snapped into the socket with a considerable noise, without much difficulty, or pain to the patient. Repose, cold applications, leeches, and the usual routine of treatment completed the recovery.

18. *Introduction of Foreign Matters into the Blood.** M. Majendie pursues his physiological career with great eclat, and his contributors are daily increasing, both in number and respectability. The *Physiological Journal* before us bids fair to have a most extended circulation, and we shall, in future, pay our respects to its contents more frequently than formerly.

It has been observed, in all ages and countries, that the introduction of putrid and unwholesome substances into the system, as food, has been generally followed by fevers and other malignant diseases, as the histories of famines too fully prove. The experiments which have been undertaken by Dr. Gaspard, may, it is to be hoped, throw some light upon the subject; and are therefore deserving of being widely known. The first series of experiments, ten in number, consisted in the introduction of purulent matter (generally a little diluted with water) from common ulcers, into the veins and certain cavities of the bodies of dogs. Before giving the conclusions to be drawn from these experiments we shall sketch a few of the experiments themselves.

Exp. 1. Into the jugular vein of a dog two drachms of diluted pus were injected. The animal, at the moment of injection, became agitated, and went through the action of vomiting. He whined, appeared weak, and vomited more than six times in the course of the day. An hour after the experiment there was an evacuation of

* *Memoire Physiologique sur les Maladies Purulentes et Putrides, sur la Vaccine, &c.* Par G. Gaspard, M. D. *Journal des Physiologie*, par F. Majendie, Membre de l'Institut, &c. January, 1822.

excrements, and of thick, troubled urine, which gave some relief. Towards evening, however, he lay sick on the ground, with his legs stretched out, the respiration insensible, and the pulse weak. Ten hours after the experiment he passed blackish, liquid, and extremely fetid stools, which brought about relief, ending in recovery. Next day the dog was well. Two days afterward three drachms of pus were injected into the other jugular of the same dog. The symptoms were in a more violent degree, and death supervened within the 24 hours. Dissection displayed no alteration in any organs. Similar experiments were again made on a dog, one on the 15th, the other on the 18th September. In the first the dog recovered, after frequent evacuations—in the second experiment he died, and on dissection the inferior portions of the lobes of the lungs were inflamed, and nearly hepatized. In another experiment, where three drachms of pus were injected, the animal died in great agony of tormina and tenesmus, at the end of five hours. On dissection, the intestines appeared thickened externally—their mucous membrane was inflamed and swollen, especially in the colon and rectum.

In an experiment, made on the 21st of September, where half an ounce of pus rather older and more putrid than in the former experiment, was injected, frightful nervous symptoms ensued, as wandering vision, excited sensibility, convulsions, hiccup, staggering, furious delirium, burning thirst, dyspnoea, palpitation, death in two hours, amid dreadful convulsions. On dissection, while the body was yet warm, the venous blood was found very coagulable—the pericardium contained a little effused serum—the left ventricle of the heart was thickened and inflamed, presenting, on its inner surface, spots of the colour of wine lees—the other organs healthy.

In two experiments, where pus was introduced by the serous membrane of the testicle into the abdomen of dogs, without producing violent pain at first, there soon came on vomiting, evacuation of urine, fever, and dyspnoea. In three hours the abdomen was convulsed, drawn in, and very painful on pressure. Death ensued in twelve hours. In the first dog the peritoneum was found reddened and rather inflamed, with about an ounce of bloody inodorous serum. The mucous membrane of the intestines was rather red and inflamed. In the second dog, the peritoneum was inflamed, and contained a small glassful of sanguineous serum of a fetid odour. The mucous coat was a little inflamed. Introductions of pus into the cavity of the pleura produced nearly similar effects. When introduced into the cellular texture, it was not absorbed, and only gave rise to a hard inflammatory tumour ending in suppuration.

From the ten foregoing experiments our author thinks he may legitimately draw the following conclusions.

1st. That pus, introduced in small quantities into the circulation, causes considerable derangement of function, from which, however, the animal recovers, after the offending matter has been expelled from the system by means of a critical excretion of urine, or of fecal discharges.

2d. That when it is introduced at successive periods into the same animal, death is the result.

3d. That when injected into the veins, in a large dose, it produces severe inflammation, namely, peripneumony, carditis, dysentery, &c.

4th. That it appears susceptible of being absorbed, causing inflammation of the serous membrane and cellular tissue, with which it had been in contact.

5th. That the majority of symptoms occurring in hectic fevers, appear to admit of being referred to the presence of pus in the circulation.

Our author is also inclined to infer, that the phenomena exhibited in the course of cancerous ulceration, old dropsies, mercurial ptyalism, gangrenous affections, drunkenness, &c. may be attributed to the absorption of a portion of morbid matters into the blood. He thinks, that absorption frequently takes place in various diseases characterized by suppuration, either through the medium of the veins, or of the absorbents, or of both—as will be made more probable by experiments presently to be detailed.

In the 11th experiment, the author threw into the jugular vein of a young sheep, an ounce of cold water, in which had been dissolved six vaccine crusts recently taken from the arms of children, to which was added, a large drop of vaccine matter from an eight day vesicle. On the introduction of this liquid the animal went through the action of swallowing, but without evincing pain. The animal suffered no inconvenience, and had no cutaneous eruption afterward.

A similar experiment was performed on a little bitch, four months old, and which had not had the "*maladie de chiens*." Half an ounce only of the vaccine solution was thrown in. In an hour the animal refused food and vomited. The vomiting was renewed many times, accompanied with burning thirst, evacuations of urine; and uneasiness, which lasted all the day. Next day, however, all was well, and no eruption appeared.

In two succeeding experiments, putrid sanies was thrown into the jugular veins of dogs. In the first, the animal went through the act of swallowing during the injection, and soon after had dyspnoea, uneasiness, and faintness. It lay on its side, refused food, and soon after passed excrements and urine. In an hour, there came on prostration of strength, dysenteric stools, redness of the conjunctiva—pain on pressure of the chest and belly, bilious and bloody vomiting—death at the end of three hours.

On dissection, the lungs were found inflamed in a peculiar manner, or rather congested. They had had a violent colour, and on them, as well as on the left ventricle of the heart, the spleen, the mesenteric glands, gall-bladder, and subcutaneous cellular membrane, were seen ecchymosed spots or petechiae. The peritoneum contained some spoonfuls of reddish serum. The mucous membrane of the stomach was somewhat inflamed—that of the intestines greatly so, with black spots, and a bloody gelatinous covering, like wine lees.

or the washings of meat. In the second dog, the phenomena and post mortem lesions were as nearly as possible the same.

In an experiment where a fetid liquid, produced from the putrefaction of cabbage leaves in warm water, was injected into the jugular of a middle-sized dog, copious stools of a liquid, fetid, and soot-coloured appearance, analogous to the dejections in melena, supervened in the course of nine hours, accompanied by vomiting and great prostration of strength. The dog lived three or four days with nearly similar symptoms, and then sank.

On dissection, slight phlogosis was observed in the lining membrane of the bronchiæ—the left ventricle of the heart presented several brown ecchymoses—a fibro-albuminous concretion, weighing two drachms and a half, filled in part the right ventricle of the heart, and adhered to its internal surface by a space not larger than the finger nail. The mucous membrane of the intestines, especially of the duodenum and rectum, was inflamed in longitudinal streaks, but without any thickening or ulceration.

In a similar experiment, where a putrefied solution of the stalks and leaves of beetroot was used, nearly the same symptoms as above were produced, especially dysenteric affection, with bilious vomitings, &c. The *post mortem* appearances were nearly the same. These two experiments, M. Gaspard thinks, prove that putrid vegetable matters act upon the system in the same manner as animal, but in a milder degree.

The next suite of experiments is on the subject of *absorption*. Where putrid vegetable liquor was thrown into the subcutaneous cellular tissue, inflammation arose, attended with pretty severe constitutional symptoms, but death did not ensue. Where a similar liquor was injected into the cavity of the peritoneum, severe constitutional symptoms immediately took place, such as vomiting, purging, abdominal tenderness, dyspnoea, tenesmus, and death, in nine or ten hours from the injection of the fluid. On dissection a quantity of vinous coloured, but inodorous effusion was found in the belly—the peritoneum inflamed—and, as it were, ecchymosed—the mucous membrane of the digestive canal, from the cardia to the anus, uniformly inflamed—the cavity of the pleura containing red and bloody serum. These experiments prove, M. Gaspard thinks, that putrid substances are *absorbed* when thrown into the cellular tissues, grounding this assumption on the following circumstances:—1st. The similarity of symptoms resulting from injection into the veins and into the cavity of the peritoneum. 2d. Although the injection into the latter produces violent local symptoms, still derangements supervene in different and remote organs, which can only be explained (he thinks) on the principle of absorption. 3d. The copious secretion of urine which always followed the injection, must, he imagines, arise from the absorption of the irritating liquid. 4th. The absence of the peculiar odour of the injected substance in the fluid found in the peritoneum after death. 5th. The derangements found in the lungs, &c.

Although we have no doubt of absorption in general, yet we think

the author's arguments in proof thereof are far from satisfactory. The disorders induced in the system at large, and even in remote structures of the body from an acrid substance thrown on, and producing inflammation in, the peritoneum, might be accounted for, we imagine, without the actual absorption of foreign matters, on the well-known principle of the sympathy which exists between the different structures of the body.

M. Gaspard goes on to remark, that the general effects of the introduction of the putrid matters in question, whether into the great cavities or the veins, appear to be a peculiar kind of inflammation accompanied with a species of passive hæmorrhage from the mucous membrane of the intestinal canal. The remaining experiments of M. Gaspard we do not consider as particularly interesting or worthy of translation to our pages at present. We leave our physiological readers to form their own conjectures, and draw their own deductions from those we have above detailed.

19. *Carcinomatous Tumour in the Neck, mistaken for Aneurism of the Carotid Artery.* A gentleman in Geneva had a tumour, which grew under the angle of the jaw on the left side, accompanied by great pain. At length it so obstructed his swallowing, that he was on the point of dying from inanition. In consultation it was agreed that there was reason to believe the tumour to be aneurismal, founded on the following circumstance. When the patient was placed in such a position that the outline of the tumour could be defined, and compared as to its size, at different periods, it was perceived that pressure on the carotid artery manifestly and considerably diminished its volume. This fact, and a consideration that the patient had but a few days to live, if not relieved, determined M. Munoir to pass a ligature round the carotid artery.*

The operation was accordingly performed with the temporary ligature. The tumour quickly shrunk, the gentleman was able to swallow, and in a short time it was reduced to one-third of its original size, with an entire cessation of the excruciating pain. When the patient and friends were congratulating themselves on the prospect of complete recovery, the volume of the tumour began gradually to augment—the pain to increase—and, in short, the whole of the bad symptoms to return. The surgeons of Geneva knew not how to proceed, and the patient was recommended to go to Paris.

* In a conversation which Dr. Marcet had with the celebrated Scarpa at Pavia, the latter gentleman observed that he had repeated all Mr. Travers's experiments on temporary ligature of arteries, both in man and brutes, and found them perfectly correct. He was therefore not a little surprised to find Mr. Travers subsequently invalidating his own doctrines, the truth of which had thus been proved by a foreign and unbiassed experimentalist.

There he consulted Dupuytren, who, with his accustomed *liberality*, reproached the surgeons of Geneva, for having completely mistaken the case, and performed an unnecessary operation. He, of course, proposed and executed extirpation. For a time, things wore a flattering aspect again, and Dupuytren plumed himself on his penetration and dexterity; but presently the disease began to show itself once more, and in despite of all the caustics and cauteries which Dupuytren could apply, it progressively got worse, and, in fact, assumed all the characters of a malignant or carcinomatous affection. The disease has spread not only to the skull, but to the brain, with a loss of intellectual faculties, and a state of dreadful sufferings, so that his existence is become loathsome and horrible in the extreme. Fortunately it is near a close.

Now, contrary to the fiat of M. Dupuytren, we are of opinion that the operation resorted to by the Geneva surgeons was *justifiable* under the then existing circumstances. It cut off the supply of blood from a tumour which had so far encroached on the œsophagus as to threaten speedy death for want of food—and the event proved that it did give a temporary relief, not only checking the growth, but actually diminishing the volume of the tumour to one-third of its greatest size. This operation also gave a chance for the sloughing process, (which sometimes occurs,) by reducing the vascularity, and consequently the vitality of the morbid structure.

On the other hand, we conceive that M. Dupuytren's operation was *unjustifiable* at the time it was performed;—and for this reason, that the disease was long before become constitutional. Those most experienced in carcinomatous affections are aware that the period for extirpation is often too late, long prior to the scirrhus becoming an open cancer—and that even in the female mamma, where there are no important parts underneath to prevent the surgeon from searching freely for all roots of the disorder. But in the neck, where the bands or radii of the scirrhus structure shoot in among vessels and nerves where the knife dare not follow, what chance have we, at any thing like an advanced period of the complaint, of extirpating root and branch of this malignant disease? M. Dupuytren may say, “you judge of my operation by the event.” We reply that we do not judge of *it* entirely by the event, but by the event, in many other cases—the safest way surely of forming an opinion in medical matters. And there can be little doubt that M. Dupuytren availed himself of the knowledge of the event, when he censured so freely the first operation on the patient by the Geneva surgeons—and when he boldly pronounced that it never had been aneurism *after* the operation proved that part of the business beyond all doubt. We freely accord to M. Dupuytren the merit of being, probably, the first operating surgeon in France; but we will not accord to him a merit of equal importance, that of knowing better than any of his brethren, *when* an operation is proper, and *when* unjustifiable.

20. *Malaria*.* The learned but somewhat visionary author of the article "Malaria," in the last number of the *Edinburgh Review*, has made, or thinks he has made, three notable discoveries. The first is, that St. James's Park "is a perpetual source of malaria;" producing intermittents, dysenteries, liver complaints, sciatica, tooth-ach, rheumatism, neuralgia, and various derangements of health, in *all* the inhabitants who are subject to its influence." This is glorious news for the doctors, and we expect to see a fresh colony emigrate from the East, and settle "within the verge of the palaces," as the poor's rates express it. This is clearly the reason why—

The College is deserting Warwick Lane, †

"For Burnham Wood has come to Dunsinane."

We always gave the doctors, as well as the lawyers, credit for keen olfactories in smelling out a suit; but really we had no idea that their sagacity was such as to discover Pandora's Box between Buckingham Palace and the Horse Guards.

The second notable discovery of our author, is that of a "miasmometer," or test for malaria, in the person of "an officer who had suffered at Walcheren," who always has a return of his ague fits if he walks up St. James's Street, or down the right-hand side of the Strand! We are rather at a loss to discover the reason why the park malaria "reaches all through Finsbury division and Whitechapel," together with the *South* side of the Strand, while the *North* side of the same street is proof against this morbid agent! It appears too that the walking "miasmometer" has detected this *courtly fiend* in *Bridge Street*, Blackfriars. Surely Alderman Waithman, of that street, will bring this into Parliament as a charge against ministers, and as a specimen of the *corrupt influence of crown lands*, as well as of crowned heads.

The third or grand discovery of our author, "will form," he says, "one of the most valuable discoveries which modern times have added to our knowledge of prophylactic remedies." This is neither more nor less than a "*gauze veil*," by which the London Peripatetic may defend himself at once from flies and miasmata, while perambulating St. James's Street, Whitechapel, the Finsbury division, and even the South side of the Strand!

The discoverer of such a valuable prophylactic would certainly be entitled to a parliamentary reward, were it not for the unlucky circumstance that Rigaud de Lille proposed the same defence against malaria many years ago, as is well known to every medical man in the British dominions.‡

In conclusion, we beg to say that the author of the paper before us cannot attach more importance to malaria than we do; for we

* *Edinburgh Review*, No. LXXII. Vol. 36.

† See our last number.

‡ See a translation of Rigaud de Lille's Memoir, in the *second* edition of Dr. Johnson's *Influence of Tropical Climates*.

have felt its influence, and seen its effects, on a much larger scale than ever came within his observation. But living, as we have been, in the very centre of this supposed malaria of London, for years past, without seeing an atom of foundation for the hypothesis (for such we deem it) which is here brought forward, we can hardly be accused of unreasonable scepticism on the subject. It is not from such a piece of water as that in St. James's Park, and under a sky like ours, that febrific miasms are wont to arise. And even if they did, it is not upon the well-fed, well-clothed, and well-housed inhabitants in the neighbourhood that they could make any impression. No wonder, then, that we could hardly restrain a smile, when we perused this serio-comic hoax of the sly Northern Critic on his credulous brother Bull of the South.

21. *Traumatic Tetanus*.* Dr. Kennedy, an able and zealous cultivator of medical science, has detailed, in the 101st number of the *Medical Repository*, a curious case of traumatic tetanus succeeding a lacerated finger. On dissection, there were traces of vascular excitement on the peritoneal covering of the stomach—its mucous coat was preternaturally soft, and overspread with a firm yellow exudation, emitting a nauseabund odour—sphacelus obtained near the pylorus, and in the superior half of the duodenum. The liver was extensively disorganized—its substance being much softened and untenaceous, its vessels gorged with purple blood. The spleen crumbled into pieces when pressed between the fingers. The pericardium was dark, approaching a livid hue, easily lacerable, and containing two ounces of a dark brown sero-sanguiform fluid, of a syrupy consistence. The posterior hemisphere of the heart was marbled with streaks of dingy white—the anterior was nearly black. The left auricle and ventricle were unaltered. The right, with their valves, muscles, and tendons, “were so dissolved and imblended with coagula of venous blood, as to form an inorganic mass, black like pitch, and not firmer than a dense fibrinous clot.” We regret that there is no dissection of the brain and spinal marrow.

In the succeeding number of the *Medical Repository*, Dr. Kennedy returns to the subject of tetanus, and presents us with a sketch of the principal modes of treatment which have been employed in this very formidable disease. We cannot analyze this part of Dr. Kennedy's excellent paper, but may merely observe that he appears to lean to the depletive treatment, as that which offers most chance of success. The concluding case related in the very valuable communication we shall introduce here, somewhat abbreviated.

On the 1st January, 1822, Dr. K. was summoned to a young woman who had fallen down in a fit, and was apparently dying. He found her labouring under an exquisite paroxysm of hysteria,

* Dr. James Kennedy, of Glasgow. *Med. Repos.* 101-2.

lying insensible, with the lower jaw immoveable, the cervical muscles rigid, the countenance flushed, the temporal arteries throbbing violently, the opaque cornea suffused, with other symptoms indicative of sanguineous compression of the brain. About thirteen months previously she had been thrown into a similar fit by a sudden fright, since which time her catamenia became irregular, and for the last six months suppressed. Three days preceding the present attack she had been severely struck on the lumbar region, succeeded by lancinating pain, headach, and catchings in the chest. Twenty ounces of blood were immediately abstracted, with the effect of awakening consciousness, and giving relief to the organs of deglutition. Half a drachm of the sulphate of zinc was then exhibited, which produced instant vomiting, and the expulsion of much crude aliment from the stomach, which afforded much relief. She took an anodyne draught, and composed herself to rest. Next day, our author found her in a state of great exhaustion, with feeble, intermitting pulse, loaded tongue, and confined bowels. An active lavement administered, and a powerful antispasmodic mixture prescribed. At six of the same day, the hysterical paroxysm returned, combined with true trismus and opisthotonic spasms. These subsided, and left her in still greater weakness than before.

"Recognising a complication of tetanus with the original disease, I instituted a minute examination of the patient's upper and lower extremities; and, with considerable alarm, discovered a small, dry, orange-coloured ulcer on the last joint of the great toe of her left foot. This, I was afterward told, succeeded a bruise of the parts with a stone. Repetition of the lavement and other remedies, with an emollient poultice to the ulcer, being enjoined, the assistance of my friend, Dr. Nimmo, was requested; and we met, by appointment, at eight o'clock in the evening.

"At this time, we had an opportunity of witnessing a most formidable paroxysm of the malady, by which we apprehended the misfortune of seeing our patient irrecoverably destroyed. It was a paroxysm of genuine opisthotonic tetanus, superadded to hysterical convulsions of the severest kind.

"Being satisfied of the disease's true nature, we directed the application of leeches to the lumbar spine, abdominal fomentations, stimulating cataplasms to the toe, and an alcoholic solution of croton oil, conjoined with the antispasmodic mixture, to be given in divided doses, at such intervals as the state of deglutition should admit. The primary results of this treatment were indeterminate; the ultimate completely favourable.

"Various modifications of these remedies, aided by occasional injections and sponging of the surface with warm water, were assiduously employed during the ten subsequent days; by which time, all the symptoms, except a general nervousness, had altogether disappeared.—*Med. Repos.* 454.

So soon as general suppuration was established in the ulcer, the spasmodic paroxysms gradually diminished; hence it is not unrea-

sona bleto conclude that the tetanic phenomena were caused by the wounded toe. "By the evidence of this pathological fact, our opinion of the advantages derivable, in tetanus, from judicious depletion, vascular and alvine, was practically illustrated and confirmed."

22. *Over-dose of Digitalis.** A man labouring under asthma swallowed by mistake, or rather through despair, an ounce of the tincture of digitalis, which was followed by a sound and refreshing sleep of several hours, and ultimately produced only a variation and irregularity of the pulse, which symptoms were easily dissipated by ammonia, ether, and light cordials. Dr. Fogo seems to anticipate that from this instance it will *perhaps* be found that "this drug may be given in quantities almost beyond human credibility, and with the happiest effect." Now we would just warn our younger brethren against trying experiments with large doses of digitalis, for we have seen enough, even from moderate doses, to convince us that it is a most potent and unmanageable medicine in many constitutions, and highly dangerous, if not watched with great caution. In the present case we have not the smallest doubt that the tincture was next to useless. We have had tincture of digitalis, and that from places of great note, which had no more operative virtue than proof spirit. But even if the tincture were good in this case, there was an idiosyncrasy of constitution to resist such a dose—an idiosyncrasy we may long look for again without finding it.

23. *Ascites cured after repeated Tapping.†* We all know how rarely we cure ascites, after having recourse to the operation of paracentesis abdominis. Independently of this circumstance, however, the case under review is well worthy of the practitioner's attention.

On the 11th June, 1821, D. M. 24 years of age, presented himself to Dr. McCarthy, with evident fluctuation of the abdomen, and oedematous legs. After exposure to cold a fortnight before, he was immediately attacked with the abdominal swelling. He was bled from the arm, and purged with jalap, gamboge, and calomel. He was also directed to take 20 drops of tincture of squills (a pretty large dose by the way) thrice a day. The swelling increased, and the scrotum became also effused. Paracentesis abdominis was performed, and ten quarts of fluid were evacuated. He was now ordered to rub rather better than a drachm (more than an ounce is

* Dr. Fogo. Ed. Journal, No. 72.

† Dr. McCarthy. Ed. Journal, No. 72.

stated in the Journal, but it is clearly an error) on the inside of the thighs every night. He took 20 drops of tincture of digitalis twice a day, and a scruple of gamboge thrice a day. This produced good effects. By the 28th June, the effusion had entirely disappeared from the scrotum; but the abdomen was still tumid. The pulse was natural, the urine more copious, the mouth not yet sore. On the 6th July, it was necessary to tap again. The mouth was sore. He was ordered bitter infusion with carbonate of soda—crystals of tartar—mercurial liniment to the abdomen. On the 19th July the operation repeated, and eleven quarts of water evacuated. Blue pill, squills, and digitalis, internally, thrice a day. The mouth became very sore, and pyalism ensued. The dropsical swellings disappeared, and the young man completely recovered. This is a good case, and does credit to Dr. M^cCarthy.

24. *Contraction of the Uterus.** In the sixth number of this series, page 438, we introduced a case of difficult parturition, occasioned by contraction of the uterus round the neck of the child. Mr. Plumbe, an intelligent surgeon in London, appears to have met with a similar case. The patient was a stout healthy woman, about 25 years of age, who had had difficult labours before. She fell in labour on the 12th of September; and, on examination, the vertex presented, at the upper part of the pelvis, the diameter of the latter, (from front to rear) being unusually short. A drachm of laudanum was exhibited to procure rest, and check the harassing ineffectual uterine efforts. On the 14th a more minute examination was made. In the absence of pain, a hand could be introduced along the forehead or the occiput of the child—but there a difficulty was found to exist—"a contraction of the body of the uterus round the neck of the child." In this state of affairs Dr. Granville's modification of Assalini's forceps was applied, and although a firm grasp of the head was obtained no success followed. It was therefore agreed by Dr. G. and Mr. P. that the head of the child should be opened. When this operation was performed, Mr. P. had still to encounter the difficulty of drawing the fœtus through the constricted part of the uterus. This, however, was at length accomplished, though with the painful apprehension that the parietes of the uterus should suffer in dragging the shoulders of the child through the constricted part. The placenta being removed, the uterus was examined, and no appreciable injury could be detected. "A large projecting ridge was found on its inner surface, extending round the greater part of its circumference, and lessening the diameter of its cavity considerably at this point, which must have undergone considerable distention in the transit of the child's body." The woman had symptoms of uterine or peritoneal inflammation; but so far re-

* Med. Repos.

covered as to be lost sight of. She died, however, about ten days afterward in a shivering fit.

25. *Cancer of the Lip.** M. Richerand proposes (founded on experience) a new mode of extirpating cancers of the lips. It is needless to observe that the common method is to cut out a triangular piece of lip including the disease, and endeavour to unite the cut edges by means of pins or sutures. There is often considerable pain in the process of keeping the divided parts in contact, especially where a large portion of lip has been removed, and after all we cannot avoid deformity in many instances. M. Richerand now removes the carcinomatous portion of lip with scissors curved on their flat sides, and rather short in their blades. The operation is very quickly performed in this way; but it is in the after-management that the novelty or improvement lies. Instead of bringing the parts in contact by pins or sutures, the bleeding vessels are tied, and a piece of agaric is laid on the raw surface, over which lint and a bandage are placed. On removing the dressings the third or fourth day, suppuration will be found established in the wound; and from this time the mucous membrane of the mouth and the external skin of the lip daily approximate, till, in ten or twelve days, they are united in a line, with scarcely any deformity—especially if care has been taken to cut out the piece in the form of a long crescent. M. Richerand called in, to witness the success of this operation, Drs. Beclard, Ribes, Breschet, and J. Cloquet, at the St. Louis Hospital. The patient was a female, and it was necessary to remove the whole of the under lip (*j'avais enlevé la totalité de la lèvre inférieure*) from one angle of the mouth to the other. Yet in this case the removal was scarcely perceptible in a fortnight. When the parts were first removed the aspect of the patient was hideous, and a person who had not known how far Nature could operate in the reproduction of lip, would have said that the patient would never afterward be able to retain the saliva. In this case the lip was incised below the level of the floating portion—that is, below the angle which the mucous membrane makes in turning from the lip to go up on the gums. At every dressing the lip was seen more elevated, till at length it not only covered the gums, but rose above the level of the teeth. The patient perfectly recovered, and no deformity was the consequence.

We could not suppose that M. Richerand would deceive us, but when such men as Beclard and Breschet are witnesses of the fact, no rational doubt can be entertained.

* *Nouveau Procédé pour l'Extirpation des Cancers aux Levres. Par M. Richerand. Annuaire Med. Chir.*

26. Poisoning by Opium. Mr. Wray, and subsequently Dr. Copland, have related three or four cases where laudanum had been taken with the intention of suicide, and where stupor and insensibility prevailed to a considerable extent. In this state the patients could not, of course, swallow emetics; but by dashing cold water on the patients, and repeating the affusion according to circumstances, the sensibility was so far roused that remedies could be exhibited, and the cases terminated successfully.

—27. Remarkable Wound of the Brain.* The records of surgery present numerous instances of severe wounds of the brain, without loss of life. We believe, however, that the following authentic fact is without a parallel.

Cass. On the 8th of March, 1822, a dragoon, who had been wounded in a duel, was carried to the GROS-CAILLON Hospital. The point of his adversary's sabre had penetrated the skull by the right orbit, and under the ball of the eye. How far it had gone could only be conjectured, as the weapon had been withdrawn on the spot. Baron Larrey was present at the reception of the patient. The following were the symptoms as noted by Duponchel at the next morning's visit with Baron Larrey. Hemiplegia of the left side of the body—comatose disposition—immobility of the iris and dilatation of the pupil—projection of the eye-ball—difficulty of speech—perfect integrity of the intellect, as the patient answered correctly to all the questions put to him. He was bled both from the temporal artery and the arm—blisters to the back of the neck—purgatives—antimonials. These medicines produced some alleviation of the symptoms at first, but they afterward increased in violence. The patient, however, lived sixteen days, preserving the complete use of his intellectual faculties till within a few hours of his death. When the paralysis deprived him of the power of speech, he proved by signs that he perfectly comprehended all that was said to him.

On dissection, there was observed some slight effusion on the right hemisphere, with partial adhesions of its investing membranes. The weapon had entered, as was said before, under the right eye. It divided the optic nerve, and the ophthalmic artery, and completely traversed through the substance of the middle lobe of the right hemisphere, the point of the sabre penetrating into the roof of the skull above, without, however, touching the ventricles. The sabre in being withdrawn violently had brought with it into the orbit a portion of cerebral substance. It was very remarkable that there was no appearance of suppuration in any part of the track of the

* Observation sur une Plaie du Cerveau. Par A. Duponchel. M.D. Bulletin de la Société d'Emulation de Paris. Mai. 1822.

weapon through the brain. The stomach was found inflamed, and some ulcerations in the mucous membrane of the intestines.

It is curious to think how a man could live sixteen days after the infliction of such an injury, and preserve his intellects till the last. This circumstance, our author thinks, is a proof of the truth of the Gall and Spurzheim doctrines, that the brain is a congeries of organs, each destined to govern a separate order of functions or faculties. Now we can see no other proof in the case, before us, than that the brain, like some other organs in the body, is *double*; and that *one side*, like that of the lungs, or like one of the testicles for instance, is capable of performing the functions of *both*, in cases of necessity. The phlogosed state of the stomach, and the ulcerated condition of the lining membrane of the intestines, show the strict sympathy which exists between the brain and these parts, and the reaction which one is capable of exercising on the other.

Baron Larrey, in his *Recueil des Memoires de Chirurgie*, observes, that he had long remarked that the lesions or alterations of parts about the base of the brain were followed by a diminution or loss of sensitive and locomotive powers, together with great disturbance in the function of respiration, while the intellectual faculties maintained their integrity. The Baron relates several cases in illustration of this point, for which we refer to the volume itself, page 198, *et seq.*

28. *Counter-Irritation*.* Mr. Ogden has related, in the last number of the Medical and Physical Journal, a curious case illustrating the effects of extensive counter-irritation. The patient was a child, six years of age, who had been affected with cough and copious expectoration "from the earliest period of life." During the last two years he had also been subject to epileptic fits recurring at intervals of nine or ten weeks. But *these* were always brought on, or preceded by, a deranged state of the alimentary canal. On the 22d October, 1821, the child's clothes caught fire, and he was burnt in a dreadful manner, the skin being removed from the whole of the thorax in front, and a considerable portion of the abdomen. Unfortunately too, the terebinthinate dressings produced "a universal erythema of the skin." As a compensation for all these evils, the child was completely cured of his pectoral and epileptic complaints. Although we cannot recommend the *same remedy*, we think the case affords a strong proof of the great power of extensive cutaneous irritation and exulceration over internal disease.

Hydrophobia.† Thirteen persons were bitten by a rabid wolf on the 1st of November, of whom nine died, and four survived.

* London Medical and Physical Journal for August 1st, 1822.

† Professor Brera. Mem. della Società Italiana de Modena

These four were submitted to medical treatment. The first patient was wounded in the neck, in two places. The wounds were healed by the tenth day; but on the nineteenth the cicatrices became red and painful. A warm bath—a drachm of mercurial liniment daily to be rubbed in—one of the following pills every three hours:—oxy. hyd. gr. ss. pulv. rad. belladonnæ gr. x. ft. pil. iv. These pills were taken till the 25th, the oxymuriate being increased to two grains, and the belladonna to thirty in each mass of pills. Salivation and faucial inflammation ensuing, the mercury was discontinued, and the bath and belladonna persevered in, the latter being now taken in the dose of four scruples *per diem*, and gradually increased (in the course of nineteen days) to three drachms. On the 1st December the mercurial treatment was resumed, and continued till the 4th January. In the space of 47 days seven ounces and a half of belladonna, five grains and a half of oxymuriate of mercury, and four ounces of mercurial liniment had been used. The mercury excited febrile irritation, and the belladonna occasioned vertigo, vomiting, tremors of the limbs, obscurity of vision, &c. The sight of the bath occasioned great anxiety, and sense of constriction about the fauces.

In the second patient there were two wounds in the neck, and several others in the arm. The former were healed on the 4th of November, the latter on the 9th. He felt an obtuse pain and want of power in the arm. On the 19th the warm bath and mercurial liniment were ordered, with belladonna and calomel, internally. By the 30th of the same month, the dose of the belladonna had been increased from about 16 grains to 36 in the day. The calomel and liniment had produced salivation by the 26th of November. The mercurials and the belladonna were continued more or less till the 4th of January. The warm bath could not long be used, the sight of the water producing great oppression about the præcordia, and sense of suffocation at the moment of immersion. The patient experienced also a degree of repugnance to the ingurgitation of watery fluid for several days.

In the case of the third patient, the wounds inflicted by the rabid animal healed on the 7th November. On the 19th, the belladonna, mercury, and warm bathing, were commenced, and continued till the 31st December, when all medicines were discontinued. There was no dread of water in this case.

The fourth of the fortunate patients was bitten in the right arm, in the hand, and in the left hip. The wounds were healed by the 18th of November. His wife and child fell victims to the dreadful disease. He began with two grains of belladonna every four hours, and a drachm of mercurial liniment for daily friction. The belladonna was increased gradually to three drachms in the 24 hours. Slight salivation came on about the 26th November, and the daily use of the warm bath was now added to the other remedies. The whole of the means were continued till the 5th January. In the course of the treatment the patient experienced, besides the usual effects of the belladonna, violent palpitations at night, with cold

chills, succeeded by icteritious symptoms, especially in the eyes. On the 21st December he had some hydrophobic symptoms, and complained of pain in the cicatrices of the wounds in the thigh. He peremptorily refused to go into the warm bath; but being forced in, he was attacked by such a degree of anxiety, and also convulsions, that it was necessary to withdraw him immediately.

The subjects of the foregoing narrative continued in health down to the time of writing the memoir, which must have been six or seven years. The other cases all proved fatal, and need not occupy space here. As a prophylactic, we believe mercury to pytalism is more efficacious than any other remedy exhibited internally; but as we consider the removal of the bitten part as the only thing to be depended on, so when that is done nothing else is necessary. There are circumstances, of course, where the parts cannot be removed, and there are too many instances where excision is neglected;—here the prophylactic is rationally indicated.

The readers of our first series, vol. i. p. 494, *et seq.* will remember a very interesting paper on this subject, by Mr. Daniel Johnson of Torrington, in Devonshire. That gentleman had served a great many years in India, where canine madness is unfortunately very prevalent, and he asserts that—"in every instance where he had time or permission to impregnate the system with mercury, after the infliction of the bite, and before the symptoms of hydrophobia showed themselves, the latter were entirely prevented."* For many interesting details respecting the mercurial prophylactic, we must refer to Mr. Johnson's paper.

30. *Obliteration of the External Iliac.*† Mr. Bryant was called to a woman on the 21st of January of the present year, who complained of acute pain in the *right* hypogastric and iliac regions, increased on pressure, and accompanied by quick, full pulse, costive bowels, and pyrexia in general. These symptoms were judiciously treated by venesection and other antiphlogistic measures, and by the 26th the pain in the iliac region had ceased; but she had great pain in the course of the *left* ureter, with much suffering in making water. These symptoms were also mitigated by appropriate means; but on the 28th, while in the warm bath, she complained of a sudden numbness and coldness of the *left* extremity, succeeded by severe pain in the calf of the leg. These symptoms continued till the 1st February, when petechial spots appeared on the foot, with coldness, and complete loss of sensation. The calf of the leg, however, was swollen and tender. No pulse to be felt in the femoral artery. On the 3d Mr. Brodie saw the patient, and ordered a flan-

* No. 4, for April, 1819.

† Mr. Bryant. *Med. Repos.* Aug. 1822.

nel roller from the foot to the groin. She has diarrhœa. On the 5th Messrs. Brodie, Cline, and Clark saw the patient. On the 6th, the pulse was 140 and irregular—the foot extensively livid—"the line of separation between the muscular and tendinous portions of the gastrocnemii muscles is faintly discernible." The right leg is also very painful. On the 8th the livid appearance had spread farther up the left leg, and vesicles were observable two inches above the ankle. We cannot pursue the diurnal reports of this afflicting case; but we find that on the 20th "the toes of the left foot are shrunk, dry, and withered." On the 9th March, "the foot is fast separating. She is looked upon as hopeless." On the 16th "sphacelation has increased rapidly;" but the pain is more moderate; the bowels regular—pulse 110—appetite improved—sleeps better. 21st. The bones are exposed—rests well—strength improves. On the 6th July, we find that the foot had been removed, merely by dividing the bones, and the fibula was still exfoliating one-third below the knee. The patient's health was out of all danger.

We fully agree with the gentlemen who had the charge of this case, that it was far better to follow the steps of Nature, and remove the bones as they became denuded, than to attempt amputation above, when the soft parts were swollen and painful, and there was every reason to believe that the artery was obliterated, and consequently the parts precariously supplied with blood.

Cruritis, or Phlegmasia Dolens. Dr. Hosack, of New-York, has published some cases and observations on this painful disease, in a letter to Dr. Francis of the same city. The cases we shall pass over, as containing nothing very remarkable; but we shall give the Professor's deductions respecting the pathology and treatment of the disease, in his own words. He infers—

"1. That cruritis is an inflammatory disease, not only affecting the limb, but the whole system.

"2. That it most usually proceeds from a suppression of the natural-excretions, the effect of cold, stimulating drinks, and other means of excitement.

"3. That it is not necessarily connected with the lochial discharge, as inculcated by Trye, Denman, and, indeed, by Rodrigus Decastro, of Hamburgh, in 1603, by Wiseman, in 1676, and by Mauriceau, in 1712, who were the authors of this doctrine.

"4. That the first irritations frequently appear about the calf of the leg, and not in the groins and pelvis, as asserted by Dr. Denman.

"5. That it follows easy as well as difficult labours; and, therefore, cannot proceed from the pressure of the child's head upon the edge of the pelvis, rupturing the lymphatics, as supposed by Mr. White.

"6. That it is not a disease confined to the lymphatics, but, as

in the cases recorded by Dr. Hull, it appears in every part of the affected limb.

" 7. That it is not confined to females, but, as in the cases recorded by Dr. Hull, Dr. Ferriar, Dr. Thomas, Dr. Denmark, and others, it occasionally appears in males.

" 8. That, as in gout and rheumatism, when depletion is not actively employed, the inflammation, after appearing in one limb, is in some cases transferred to another.

" 9. That it sometimes appears in both limbs at the same time.

" 10. That the general means of subduing inflammatory action are the most effectual in removing the *active* stage of this complaint.

" 11. That in the second stage of cruritis, in addition to the use of general stimuli and tonics, stimulating spirituous liniments, friction, and the roller, are most useful in restoring the circulation, and in exciting the absorbents in the removal of the swelling which remains in the passive stage of this disease.

" 12. That occasionally, as in the cases related by Hull, Denman, and by Zinn, it ends in abscess, and proves fatal, especially where the antiphlogistic treatment has not been vigorously pursued in the first stage of the disease, or when it occurs under great exhaustion and debility of constitution."

32. *Poisoning by Opium.** In the last number of the Repository, Mr. Sprague, an intelligent practitioner of Kingston on Thames, has laid down some plain, practical, and, we think, judicious rules for the guidance of the medical attendant in cases which do not afford much time for reflection. The first object, of course, is to evacuate the poison. For this purpose Mr. Sprague affirms that the following form of emetic is preferable to all others. *R.* Subcarb. ammoniæ \mathfrak{ij} . pulv. rad. ipecac. \mathfrak{zss} . aquæ menthæ pip. $\mathfrak{z}\mathfrak{i}\mathfrak{j}$. tinct. capsici $\mathfrak{z}\mathfrak{i}\mathfrak{j}$. \mathfrak{M} . ft. haust. emet. This, if deglutition be impracticable, must be conveyed by a tube into the stomach. A little of the liquor ammoniæ on a feather is to be applied to the nostrils, and a more dilute stimulant of the same kind, is to be applied to the external canthus of the eye. The patient's head should be kept raised, and wetted with cold water; but our author does not mention the cold affusion, as recommended by Mr. Wray and Dr. Copland. When the poison is well evacuated, then the vegetable acids are to be employed; and subsequently the exhaustion is to be counteracted by suitable means.

33. *Double Harelip, with separated Palate Bones.†* The patient was about twelve years of age—palate bones much separated, and free communications between the mouth and nostrils—con-

* Mr. Sprague. Méd. Repos.

† Mr. Harrison. Méd. Repos. 101.

siderable fissures in the upper lip and jaw bone. Between the fissures was a portion of bone containing two incisor teeth, and connected to the end of the nose by a strong cartilage. This projecting portion of bone appeared to keep the palate bones much apart. It was but slightly covered by integuments, which were indurated by repeated attempts made to unite the side portions of lip to this scanty strip of skin. Mr. Harrison determined to remove entirely both it and the piece of bone containing the two teeth; and effected his object with the metacarpal saw, having first separated, with a scalpel, the integument and cartilage from the nose. This finished, he observed the palate to be more complete, the canine teeth to be more in the front of the mouth, and the circle of the upper jaw lessened. The end of the nose, which had been bound down, obtained freedom and a more natural shape. He found that there was very little want of substance in the lip, after paring the edges, which were readily brought together, and kept in union by pins and the twisted suture. He applied adhesive straps over small cushions, to bring forward the cheeks. The little patient took nourishment through a tube introduced at the angle of the mouth. In five days the pins were removed, and in a very short time the boy was perfectly well.

34. *Pathology of the Brain in Mania, &c.** The exceptions to general rules are undoubtedly more numerous in medicine than in any other science. Idiosyncrasy of constitution so modifies the phenomena of the same disease, as to leave it scarcely cognizable, or assignable to the same class, in different individuals. This is the grand cause of medicine being termed reproachfully a "conjectural art." The reproach does not *rightfully* lie at the door of the physician, but of the disease. If the same causes uniformly produced the same effects—or if there was a possibility of drawing general conclusions as legitimately in medicine, as in other sciences, then indeed we might be *justly* reproached as a faculty of conjecturers. But this is not the case. We have a *PROTEUS* to deal with, in every disease, which assumes as many forms as there are individuals in the world! Those therefore who sneer at the "conjectural art," are generally those who do not know, or do not consider the difficulties attending it:—and, at all events, even *these* will fly to it for aid, whenever the evil hour comes, as come it must to all. Mean time the accumulation of facts, and the more diligent study of morbid anatomy, are daily clearing away the rubbish of conjecture with which the healing art has been defaced since its first institution.

Dr. Hebreart has had excellent opportunities of examining the organ of thought at the Bicetre, where so many maniacs are collect-

* Observations sur quelques Maladies du Cervelet, du Cerveau, et de leurs Membranes, Recueillies à l'Hospice de BICETRE. Par M. Hebreart Medecin Ord. des Aliénés. ANNUAIRE MED. CHIRURGICALE.

ed. He has been able to correct some errors into which physicians have fallen, especially respecting the cerebellum, the diseases of which have generally been considered as very speedily fatal. Our author has accumulated several facts at the Bicetre, which prove that organic affections of the cerebellum may pass into the chronic state, the same as those of other organs, and not destroy life till after a long period of suffering. Again, it is pretty generally supposed that inflammation of the meninges of the brain can hardly exist without producing the phenomena of phrenitis. Yet our author has proved by dissections, 1st. that in persons who exhibited all the symptoms of phrenitis, no morbid appearances could be detected in the meninges;—and 2dly, that in cases where the said membranes were found greatly disorganized, no phenomena of phrenitis were apparent during life. These cases are brought forward not to discourage inquiry, but to check presumption, and thus to save the physician from the disgrace of a false prognosis into which he is not seldom led by too great propensity to generalize, without considering the numerous exceptions to all general rules in medicine.

AFFECTIONS OF THE CEREBELLUM.

Case 1. A young man fell into a state of idiotism, six years before the date of report, after a course of severe study. He then, during the winter, became so debilitated and scorbutic, that he sunk, exhibiting, for the last month of his life, that prostration of strength and aridity of the tongue and lips which characterize the low fevers. On dissection, the four ventricles of the brain were found distended with serous effusion. The parietes of the fourth ventricle were disorganized, having degenerated into a yellow and lardaceous substance, that extended more than a line, in all directions, into the cerebellum.

Case 2. A maniac in the Bicetre, who had, for several years, been considered as incurable, was seized with a complaint which our author looked upon as a common gastric affection, but soon put on the character of low fever, as great prostration of strength, dry and red tongue, incrustated teeth, &c. This state lasted four months, in despite of tonic and stimulant treatment, which produced no amelioration of the symptoms. The patient at length sunk, having the rattles in his throat for eight days before his death. On dissection, a disorganized portion of cerebellum, six lines in diameter, situated at the inferior part of the right lobe, was observed, of a hard consistence, lardaceous, and yellow colour, occupying not merely the cortical, but extending several lines into the medullary substance of the cerebellum. Opposite to this diseased portion the pia mater was destroyed, and the dura mater partook of the yellow appearance of the disorganized cerebellum.

The morbid structure in this and the preceding case, our author rationally imagines to have been of considerable standing. They were probably, he thinks, in both cases, the cause of the insanity.

Case 3. A man of strong constitution, a sawyer of marble, (an occupation not very much calculated to excite the passions,) experienced an accession of mania in 1811, he being then in his 50th year. This attack lasted three months without any lucid interval. Partly by time, partly by the lowering plan of treatment pursued at the Bicetre, the malady was overcome, and the patient returned to his wife and his former trade, having been six months in the hospital. He continued sane for two years, when he was again brought to the Bicetre labouring under a milder form of mental derangement than before; but considerably debilitated in physical power, without any apparent disorder of the great functions of the body. His speech was faltering—his tongue slightly paralyzed—his memory obliterated. This state continued several months, and then gradually changed into a kind of low fever characterized by dryness of the tongue, incrustations of the teeth, and general prostration of strength, which symptoms resisted all the tonics and stimulants that could be employed. The debility gradually increased, with scarcely any deviation from a natural state in the pulse or animal temperature—in short, without any of that reaction which is generally observable even in the lowest fevers. The patient at length ceased to exist, after lying fifty-five days without speaking a word, without turning in his bed, without exhibiting any nervous movement or symptom of irritation.

On dissection, the thoracic and abdominal viscera presented nothing remarkable. In the head, all the parts were infiltrated with black blood. ("Toutes les parties infiltrées d'un sang noirâtre.") The lateral ventricles were distended by a considerable quantity of water; but what was most remarkable was a gelatinous degeneration in the left lobe of the cerebellum. All the inferior surface of this lobe had the consistence of jelly to the depth of three or four lines. It was only necessary to scrape the parts gently with the handle of the scalpel, in order to reduce them to a fluid. When this was done, the lobe, instead of presenting a convex surface, had a concave aspect, the parietes of which concavity were hard, polished, and formed a kind of cyst. Our author queries if it be not probable that the attack of insanity, in 1811, was owing to inflammation in this part of the cerebellum, which becoming chronic, produced at length the alteration of texture above described.

CEREBRUM.

Affections of the *brain* are much more common in maniacal cases than of the cerebellum.

Case 4. A soldier, 32 years of age, of sanguineous temperament, was admitted as insane into the Bicetre. He had been rendered deaf by exposure to a long and tremendous cannonade, after which he showed symptoms of mental alienation. He was attacked by phthisis pulmonalis while in the Bicetre, and after going through the different stages, died. On dissection, the viscera of the abdomen were found healthy—the lungs filled with tubercles in a

state of suppuration—the meninges of the brain healthy—a tumour the size of a nut in the anterior lobe of the right hemisphere. This tumour was enveloped in a peculiar membrane or cyst, intimately connected with the surrounding cerebral mass. Cut into, the tumour presented a substance of a lardaceous consistence.

The two next cases related by our author were epileptics, between whom and maniacs there is but too much relationship.

Case 5. A man, aged 40, had been epileptic since the age of 18, the complaint having been brought on by a fright. The paroxysms of the disease were not in general more frequent than once or twice in the month. During one night, however, while in the Bicetre, he had several paroxysms of epilepsy in succession, and no alarm being given by the nurse, the man died with all the symptoms of asphyxia—an accident which not uncommonly happens, under such circumstances, unless bleeding be had recourse to in time. On dissection, a portion of the posterior lobe of the left hemisphere of the brain was found disorganized, and converted into a yellow pultaceous matter, and surrounded by a portion of indurated brain.

Another epileptic, 30 years of age, had had paroxysms of the disease twice a week for the last five years; the disease having arisen without ostensible cause, and not as yet attended by intellectual aberration. He was suddenly seized one day, without evincing (according to the report of the nurse) any of those struggles which attended all former paroxysms, and carried to the infirmary of the institution in the following state;—face flushed—vessels of the conjunctiva gorged—tongue embarrassed—ideas confused—pulse strong and frequent—respiration sibilant. Notwithstanding bleedings, sinapisms, and other means, the apoplectic state increased, and the patient died on the third day of the attack.

On dissection, the viscera of the thorax and abdomen were found healthy, with the exception of the heart, which was very large in proportion to the size of the patient. The cerebral vessels were greatly gorged with blood. On the borders of the hemispheres opposite the falx, were developed, very gradually no doubt, red, callosous excrescences, similar in appearance to those syphilitic vegetations called *cauliflower* excrescences. The lateral ventricles, especially the left, were very much distended with serous effusion.

The following case is remarkable.

Case 7. Francis ———, 56 years of age, who had been three years in prison, evinced, towards the end of November, 1814, a certain absence of mind, which was remarked by his comrades. On the 1st December, he experienced a sudden attack of general paralysis, and was carried to the infirmary, being incapable of speaking, hearing, seeing, or feeling—the muscles were relaxed, the respiration natural, the animal temperature moderate, the pulse slow, and not very strong. Four grains of emetic tartar were exhibited, but produced no effect. In the evening four grains more were given, which produced only a few stools. He now swallowed, though

with difficulty, some stimulating potions—sinapisms were applied to the feet. It was not till after 48 hours that he recovered from this lethargic state resembling a profound sleep. Seven hours after this, he experienced an attack of mania, which lasted but a few hours, and then changed into the original lethargy, in which he lay insensible. After applying blisters to the thighs, and taking a large quantity of blood from the arm, the patient recovered sense again for nine or ten hours, after which he relapsed once more into a state of *carus*, as above described. During the lucid interval he complained greatly of his head, and of pains in his limbs. He continued to relapse and revive alternately, till the 15th December, when he found himself so well as to be able to take some food. He had no other attack till the 21st, when he fell out of a window into the street, and was taken up paralytic, as in the first instance. This state continued two days, during which he was insensible. From this he revived, and was rather violently insane for some hours, when he fell back into *carus*, which lasted 36 hours. This state of alternate *carus* and mania continued till the 12th January, 1815. The periodicity of the attacks, and the want of well-marked pyrexia, determined our author to exhibit the cinchona, both in powder and decoction. In three days from the commencement of this mode of treatment, the symptoms, both of mania and paralysis, disappeared. The medicine was continued five days, and the man was so well in a month, as to return to his domestic avocations.

Our author has no doubt in his own mind, that the above was a case of masked intermittent fever of a malignant nature—" *fièvre intermittente pernicieuse larvée.*"

MENINGES.

There can be no doubt that, in the great majority of cases, inflammation of the cerebral meninges will exhibit the usual phenomena of phrenitis—as fever, exaltation of the intellectual functions, delirium, and functional disturbance in various other organs than the brain. The following observations are brought forward to prove that the rule is not absolute, and that the phrenitic excitement is not always in proportion to the meningeal inflammation.

Case 8. A professor of music, 47 years of age, from some domestic inquietude, fell gradually into the following state :—agitation and delirium—insomnium—physical sensibility greatly increased—hard and full pulse—skin moist. If not confined, the patient was constantly in motion, upsetting and breaking every thing in his way. When confined by means of the strait waistcoat, &c. he struggled incessantly to disengage his limbs. He only pronounced some incoherent words and sentences, showing that his ideas were as disorderly as his muscular movements. After continuing nine days in this state, an inflammation arose in his right leg, which quickly took a gangrenous turn from the continual friction of the part in consequence of the patient's restlessness. He died on the 17th day from the invasion of the phrenitic state.

Dissection was confidently expected to disclose well-marked phlogosis of the brain or its membranes. No such thing was found. The contents of the cranium, and of both the other great cavities, were perfectly natural, with the exception of a rather firmer consistence than usual of the muscular substance of the heart, and of the brain and spinal marrow.

That the death of this patient was accelerated by the gangrene of the leg, there can hardly be a doubt; yet it is abundantly evident from this case, and still more so from the one which follows, that such disturbance of *function* may take place in the brain, as may destroy reason and even life, without producing any cognizable alteration of structure.

Case 9. A farmer, 53 years of age, lean, and accustomed to hard work, experienced, during the troubles of 1813, the loss of all his little property, and was himself obliged to fly to the woods to preserve his life. On returning to his former habitation, and finding but a wilderness, he lost his appetite, became sleepless and inconsolable, notwithstanding the incessant exertions of his children to cheer him up. His intellects soon gave way, and his family were forced to convey him to the Bicêtre. Here he was exceedingly violent, biting, tearing, and fighting with his keepers—crying out incessantly, and refusing all sustenance, or swallowing it at times voraciously. He continued fifteen days in this state, his strength gradually declining, but the insanity remaining unmitigated. The tongue to the last was moist, the pulse natural. On dissection, no inflammation, or traces of such, could be detected in any part of the brain or its coverings—on the contrary, they appeared blanched, and, as it were, deprived of their due share of the vital fluid. No disease in the thoracic or abdominal viscera.

In respect to the above case, it is but fair to bear in mind that the abstinence from food, and gradual extenuation of the body before death, might very considerably tend to prevent post mortem traces of inflammation being cognizable, even if they had actually existed during life. We are of opinion indeed that *simple inflammation* of a serous tissue is often obliterated by death, or rather the exhaustion which precedes death. It is one or other of the terminations of inflammatory action, which remain indelible, such as effusion, thickening, purulent secretion, &c. When the usual symptoms of inflammation are very evident during life, and yet no change of structure can be perceived on dissection, we are hardly justifiable in denying the pre-existence of phlogosis—and still less would we be justifiable in acting on this supposition in practice. The external signs of inflammation must be combated by the usual means, regardless of the *possibility* of our having a neurosis instead of a phlogosis to deal with.* Still it is very proper and necessary to

* As far as our own observations have extended, we have been led to think moral causes act more on the functions, and physical causes on the structure

be acquainted with the exceptions as well as the general-rules—especially in medicine, where they are so numerous.

The following case is fully as remarkable as its predecessors.

Case 10. A man was picked up by the police, and sent to the Bicêtre as alienated. No history could be traced, nor even could his name be ascertained. He appeared to be about 30 years of age, and muscular. He spent four days in the hospital in the following state:—he was constantly standing upright, his head thrown backwards—his limbs were on the stretch, but not stiff—he frequently uttered the following exclamation, "*Ah! mon Dieu!*" followed by a muttering of some indistinct words—his eyes were prominent and always open—the conjunctivæ injected—the pupils but little dilated, and not affected by light or shade—the jaws were kept shut, but not spasmodically locked—drink introduced into the mouth passed out again, without being swallowed. The physical sensibility was as obtuse as the moral, for he felt neither the pricking of pins, nor the aspersion of cold water, nor the application of heat, although blisters rose when applied to the skin. The organs of sense were not entirely obliterated in function, but external impressions on them could not rouse the brain to any reaction. Attention and judgment were completely suspended. The pulse was full and hard. A venesection made no alteration in the symptoms for better or worse. He died suddenly on the fourth night from his entrance into the Bicêtre; and on dissection the brain and its membranes, as also the thoracic and abdominal viscera, were found in a state of perfect integrity.

We have but one more case to analyze, and then we shall close this article.

Case 11. A man, 37 years of age, thin, and of a bilious temperament, was arrested for political opinions, and kept three months in prison, when he was acquitted. The doors of his jail had scarcely been opened, when he evinced a high degree of mental excitement—ran home and broke every thing that came in his way—knew not his parents—and would have thrown himself out of the windows, had they not been well guarded. He was conducted to the Bicêtre. His pulse was nervous, feeble, and frequent—he was constantly crying out, and muttering words without sense—his eyes were fixed—a cold perspiration covered the body—his agitation was without remission, day and night, in spite of sedative, and antispasmodic potions, warm baths, sanguineous evacuations, sinapisms, and blisters. He died on the third day after coming to the hospital, and on the fifth from the commencement of the phreny. On dissection, the muscles of the extremities appeared in a state of rigid contrac-

of the brain. It is therefore very advisable, in all cases, to inquire particularly into the etiology of cerebral affections, and into the manners, habits, and tempers of the patients.

tion—the heart was rather larger than natural, and firm—stomach and intestines contracted—all parts of the brain firm, and of the consistence of liver, so as to crepitate under the scalpel. Outwardly and inwardly the brain was of a white colour. No fluid was found in the ventricles, and the meninges were perfectly healthy.


This firmness of the brain has been observed in many maniacs, and was pointed out by Morgagni in epileptics. We hope the above facts will be found useful, and we shall, for the present, make no comments on them.

XII.


BIBLIOGRAPHICAL RECORD.*

1. The New British Domestic Herbal ; or a correct Description of British Medicinal Plants ; intended for the use of families, and for every purpose of domestic medicine ; illustrated by plates exhibiting one hundred and thirty-two figures of English plants, accurately coloured according to nature. By JOHN AUGUSTINE WALLER, Translator of Orfila, Author of a Treatise on Incubus, &c. Octavo, pp. 408, and 33 plates, Cox and Son, Borough, 1822, price 18s. plain, or 1l. 10s. coloured.

2. An Essay on Mineral, Animal, and Vegetable Poisons ; in which the symptoms, mode of treatment, and tests of each particular poison, with the general morbid appearances on dissection, are concisely detailed : to which is added, an Account of the Means to be employed in Cases of Suspended Animation. Second Edition, duodecimo, pp. 75, with 15 plates. Cox and Son, Borough, 1822, price 3s. 6d. boards.

 This is in the manner of the toxicological charts, but adapted for the pocket, and likely to prove a popular little vade-mecum of its kind.

3. Cases in Surgery ; selected from the records of the Author's practice, at the St. George's and St. James's Dispensary ; and illustrating the nature and mode of treatment of strumous or scrofulous ophthalmia ; the sedative powers of tartar emetic in the cure of local inflammation, when administered internally ; the treatment of the mammary or milk abscess ; and the beneficial effects of elm-bark, as a cheap substitute for sarsaparilla, with two plates. By HENRY JEFFREYS, Esq. Senior Surgeon to the St. George's and St. James's Dispensary ; Assistant Surgeon to the Lock Hospital ; and formerly a Surgeon in the 3d Regiment of Foot Guards. Octavo, pp. 237, 8s. bds. London, 1820.

 To be reviewed in our next number.

* Authors and publishers will readily perceive the advantage of having works registered on this List, with full title-pages, which stand as perpetual advertisements afterward; the Bibliographical Record forming an integral part of the Journal. Authors are requested to give particular directions to their publishers to transmit works as soon as published, for registry in this department of the Journal, as no work can be inserted that are not transmitted for that purpose.

4. A Sketch of a New Nosological System for the Classification of Diseases. By ROBERT TYLER, M.D. Octavo, sewed, pp. 14. Calcutta, 1821.

5. Observations on some Points relating to the Anatomy, Physiology, and Pathology of the Nervous System. By JOSEPH SWAN, Member of the Royal College of Surgeons, and Surgeon to the Lincoln County Hospital. Octavo, pp. 98, with nine plates. London, 1822.

6. Observations on the Use and Abuse of Friction: with some remarks on motion and rest, as applicable to the cure of various surgical diseases. By JOHN BACOT, Member of the Royal College of Surgeons, London. Octavo, sewed, pp. 40. Callow, 1822. Price 2s.

[F] This little pamphlet contains judicious observations on Friction, and very properly discriminates those cases where it may, and where it may not, be advantageous.

7. A Case of an unusually large Aneurism of the Right Axillary Artery, in which the Subclavian Artery was tied. By CHARLES H. TODD, one of the Senior Surgeons to the Richmond Surgical Hospital. Octavo, pp. 13. Dublin, 1822.

[F] See page 402 of this Number.

8. A History of a severe Case of Neuralgia, commonly called Tic Douloureux, occupying the nerves of the right thigh, leg, and foot, successfully treated; with some observations on that complaint, and on its causes, as they vary in different individuals. By G. D. YEATS, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. Octavo, sewed, pp. 55. London, 1822.

9. Cases of Neuralgia Spasmodica, commonly called Tic Douloureux, successfully treated. By BENJAMIN MUTCHINSON, Fellow of the Royal College of Surgeons, of London, &c. &c. Second Edition, pp. 189. London, 1822.

10. Considerations sur la Fievre Jaune. Par LE BARON LARREY, &c. &c. Second Edition, octavo. Paris, 1822.

[F] We return our thanks to the Baron for this little work, and beg to say that we shall take an early opportunity of rectifying our misapprehension of what the Baron meant by "saignées locales," in his Russian Campaign. His message, by Dr. Archer, was received, and the Journal shall be regularly transmitted to him.

11. The Vaccine Scourge: Part II. containing the New Beggar's Opera, &c. Octavo, pp. 106.

[F] We have been requested to hold up to extensive view the knaves, and the demi-Charlatans, so well delineated in the above pamphlet. But we cannot sully our pages with their names, and as to their characters, they are now pretty well appreciated by society at large. Of these worthies we may say, as Pope said of Demetrius:—

"On men so poor we cannot take the law ;
 "On men so old we scorn our words to draw ;
 "Uncaged then let the harmless monsters rage,
 "Secure in dulness, madness, want, and age."

12. A Case of Hydrothorax, in which is related the origin of the disease, and progress of cure, from the most hopeless state to a return to health: with some observations on Hydrargyri Submurias. By W. WHISCOFF, M.D. Octavo, sewed, pp. 21. 1822.

☞ This was a man upwards of sixty, whose constitution was much broken by intemperance, and whose lower extremities had been, for years, œdematous. He was seized with evident symptoms of hydrothorax, and was treated with digitalis at first, and subsequently with digitalis and the sulphate of iron. Great diuresis was the consequence, and a cure was effected, as far as could be expected at his age, and in his constitution.

13. The Principles of Inflammation and Fever. By C. E. LUCAS, M.D. Octavo, pp. 304. London, 1822.

14. Researches respecting the Medical Powers of Chlorine, particularly in Diseases of the Liver; with an account of a new Mode of applying this Agent, by which its Influence on the System can be secured. By WILLIAM WALLACE, M.R.I.A. Member of the Royal College of Surgeons in Ireland; one of the surgeons to the Charitable Infirmary, Jervis-Street; Surgeon to the Dublin Infirmary for Diseases of the Skin; Lecturer on Anatomy and Surgery, &c. Octavo, pp. 162. London, 1822.

15. We received the following printed and manuscript Works in a packet, on the 23d July, from "an individual who is much indebted to Dr. Johnson;" and to this unknown individual we return our sincere thanks. The editor would be glad of an interview, if the individual be in London.

1. Manifesto Acerca de Origen y Propagacion de la calentura que la Reinado en Barcelona, en el anno 1821. Par una Reunion Libre de Medicos Estrangeros y Nacionales. Segunda Edicion, pp. 20. Madrid, 1822.

2. La Medicina Constitucionalizada y Revolucionada por las ciencias exactas o la muerte de los falsos medicos seguida de una carte confidencial, &c. &c. Por D. JUAN LEYMERIE, M.D. &c. &c. Octavo, pp. 68. Madrid, 1820.

3. El-Medico Fiscal. &c. By the same Author. Octavo, pp. 27. Madrid, 1821.

4. Relacion Medico-Politica sobre la Aparicion de la Fiebre Amarilla a ultimos de julio y Principios de Agosto de 1821, &c. Escrita por El Dr. D. Juan Francisco Bahi, &c. &c. Octavo, pp. 33. Mataro, 1821.

5. A Manuscript Letter from Dr. Francisca Puga, Director of the College of Medicine and Surgery in Cadiz, to James R. Matthews, Esq. Dated Cadiz, October, 1819. Foolscap, pp. 14.

☞ This is a very curious Letter, and contains many sensible reflections on the Cadiz Epidemic, of which the author appears to have seen a great deal. He comes to the conclusion that it affects the same individual but once—that it is personally contagious—and that it is an internal exanthema, resembling the external eruptive diseases, but differing in the seat of the eruption, which is the mucous membrane of the stomach and bowels.

16. Analytic Physiology. By SAMUEL HOOD, M.D. A.B. Octavo. pp. 200. 1822.

17. Tentamen Medicum inaugurale de quinto Nervorum Pari. By JOHN WALDRON WATSON, M.D. Ed. Octavo, pp. 34. Ed. 1822.

☞ Dr. Watson we have known for some years as a zealous and indefatigable cultivator of anatomical studies. He is now deservedly crowned with the "summis in medicina honoribus ac privilegiis rite et legitime consequendis," in the venerable alma mater of the North. We hope soon to have an opportunity of making some extracts from this very able dissertation on a most intricate subject.

18. Dissertatio Medica inauguralis quædam de Dysenteria Complectens. By ALEX. FRAZER M'LAUGHLAN, M.D. Ed. Octavo, pp. 38. Ed. 1822.

☞ This is a very well constructed thesis, and we coincide entirely with Dr. M'Laughlan in the views which he takes of the etiology, pathology, and treatment of the disease. We shall quote a short etiological extract as a specimen.

"Quævis sine dubio, Dysentericæ intestinorum et inflammatio et strictura plerumque insint, attamen, ni fallor, de horum causa primaria inter pathologos adhuc agitur: quoad hoc, sentio auctorem recentem, qui perspirationem restrictam morbi causam primariam proximam existimul, rem rectè tenuisse. In Dysenteria igitur, vasis externis superficiei cutis corugalis, perspiratio cutanea coercitur; quod testantur omnia symptomata initio morbi conspicua, viz. horrores quibus succedunt magna sitis, arida contractaque cutis. Extremis vasis sic constrictis, circuitus equilibrium amittitur; sanguis ab externis ad internas partes transit; inde, in regionibus calidis præsertim, oritur magna vasorum mesentericæ ac venarum portarum plethora. Excretionem naturali per vasa cutanea sublata, intestina vicario munere fungi oportet; inde mucus, rursus naturaliter prolegens, majore copia justo secernitur. Eodem tempore a magna plethora internarum partium intestinorum sæpeque jecoris inflammatio incipit.

"In intestinis major vis sanguinis, ad mucum secernendum, ministratur; et æger dum deficit vas sanguinem vehens sæpe perumpit; morbo tamen progrediente, ac plethorâ auctâ, vasa apud partes internas sanguine adeo turgida fiunt, ut ultimo perumpantur; hoc modo excretiones sanguinæ omnino videntur."

19. Observations, from Experience, on the Aid obtained in various Diseases, particularly those incidental to Tropical Climates, by the external Application of the Nitro-Muriatic Acid in a Bath; together with several Cases in which it has been used by the author with great efficacy; to which is added, the present most approved mode of mixing the Acids and preparing the

Bath. By PHINEAS COYNE, Member of the Royal College of Surgeons of London; and late of the Honourable East India Company's Service. One vol. 8vo. pp. 140. London, 1822.

20. The Study of Medicine; comprising its Physiology, Pathology, and Practice. By JOHN MASON GOOD, M.D. F.R.S. &c. Member of the Royal College of Physicians of London. Four volumes, 8vo. London, August, 1822.

21. On the Use of the Moxa, as a Therapeutical Agent. By BARON D. J. LARREY, Surgeon in Chief to the Hospital de la Garde Royale, &c. &c. &c. Translated from the French, with Notes, and an Introduction, containing a history of the substance. By ROBERT DUNGLISON, Fellow of the Royal College of Surgeons, &c. &c. Octavo, pp. 148. London, 1822.

22. An Essay on the Epidemic Cholera of India. By REGINALD OXTON, Assistant Surgeon in his Majesty's 34th Regiment of Foot. Vol. the First, pp. 421. Madras, 1820.

IN THE PRESS.

No. 1 of Anatomical and Physiological Commentaries. By HERBERT MAYO, Surgeon and Lecturer on Anatomy.

Mr. SHAW has in the Press a Work on Distortions.

The First Part will treat of the Distortions of the Trunk to which young persons are subject, in consequence of habitual bad posture, and the neglect of proper exercise. Their varieties will be illustrated by engravings of distorted Skeletons, and sketches will be given of the postures and modes of Exercise, and of the application of Instruments, calculated to correct each deformity.

The Second Part will treat of the Scrofulous Diseases of the Spine. To this will be added an account of the extensive collection of Specimens of Distortions from various causes preserved in the Anatomical Museum, Great Windmill Street.

The "Anatomie Generale" of Bichat, translated from the French, is now in the Press, and publishing by Subscription, in Four Volumes, price Thirty Shillings.

XIII.

EXTRA LIMITES.*

I.

Observations on the Medical Use of the Oleum Terebinthinæ Rectificatum. By WILLIAM MONEY, Surgeon to the Asylum for the Recovery of Health; to the Royal Metropolitan Infirmary for Sick Children; formerly House Surgeon to the General Hospital at Northampton; Member of the Medico-Chirurgical Society of London, &c. &c.

THE following observations on the use of the oil of turpentine as a remedy of great power in the cure of several more or less severe diseases will, I think, be interesting as well as somewhat novel, although much has of late been published on the same subject. These observations are selected from clinical notes made at the Northampton Hospital, between the years 1811 and 1816, comprising histories of a very extensive series of cases.

I shall not enter into a long detail of cases, but will state at once the more important facts they embrace, and the inferences that may be drawn from them. I have witnessed the administration of this oil in all the intermediate doses from fifteen drops taken two or three times a day, on to the large quantity of four fluid ounces at one dose. It has been

* The EXTRA LIMITES department of this Review [the regular limits are fourteen sheets, or 224 pages] was opened for the accommodation of public bodies or private individuals, as a medium through which they might publish, so as to secure a most extensive circulation, at the bare expense of the paper and type. This expense is not more than 9s. 6d. per page, the number of copies struck off, being at present 1500. It is requested that all papers for this department may be transmitted (*free of expense*) to the publishers of the Journal, at least sixteen days before publication day, the Journal being always closed on the 20th of the preceding month, to give time for binding and doing up the work.

N. B. It is the intention of the Editor to defray a sheet (16 pages) of the EXTRA LIMITES department in each succeeding number, at his own expense, for the purpose of giving insertion to original papers of *superior value*. This will be a bonus to subscribers, and a mark of distinction on the papers themselves, which will come under the head of "HONORARY CONTRIBUTIONS." It is hardly necessary to state that these papers must be very select, succinct, and practical. They must be transmitted, free of expense, to the Editor, who will either publish them himself, or, if he has not room, transmit them back to the authors, or, if agreeable, will convey them to some cotemporary print, and afterward notice them in the *Periscope*.

given in a variety of diseases, and in all, excepting one, was productive of great and obvious advantages.

By the small doses, as half a dram and less, taken repeatedly in the day, obstinate chronic rheumatic pains have been removed.

By doses of one dram to two drams, twice, thrice, or four times a day, cures have been accomplished in adults, labouring for two years under epileptic fits.

In doses of six drams every other morning, and continued for three weeks, children at the age of twelve years have been roused from a cloudiness of intellect bordering upon idiotism of the melancholic kind.

As a vermifuge, it has been given to the extent of one, two, three, and four ounces for a dose, the patient fasting; and its beneficial operation has not been confined to the tape-worm; but all the species of worms have been alike expelled.

In cases where several anomalous symptoms existed, such as pain in the region of the stomach, distention of the abdomen, irregular bowels, slight but irregular paroxysms of fever, wandering pains, pulse full, and disinclination to labour, without any emaciation; in these cases, in doses of two, three, or four ounces taken fasting, in the morning, it has produced the speediest and best effects.

I shall now mention, in a cursory manner, a few cases.

Case 1st. A delicate female, aged 17, who having been long troubled with the tape-worm, had taken many medicines for it. She often passed fragments of the worm, and upon her admission in 1811, was much emaciated. Nearly the whole class of vermifuge medicines was tried, but without any success. The *ol. terebinth.* was then administered in the dose of one ounce, taken in a morning fasting, by itself, with an injunction to avoid food for two hours. She experienced slight heat in the fauces, with increased sensation of warmth at the stomach; and in about an hour and a half she had two copious evacuations, in which there were many links of the worm. In three days she repeated the medicine, in the quantity of two ounces. Four days from the second dose, she took the two ounces again at six o'clock, *A. M.* and another ounce at seven; from this she had four copious evacuations, accompanied with large quantities of the worm. On the 7th morning from the third dose, she took two ounces at six, one at seven, and another at eight o'clock, *A. M.* and was purged four times, but without passing any worm. This dose produced flushings in the face, giddiness, and a slight sense of heat in passing the urine, but these symptoms

subsided after each evacuation. From this period her health rapidly improved, and she was shortly discharged, cured.

Case 2. A man, aged 30, having the tape-worm, took the oil as administered in the subject last mentioned, and was cured; but in this instance no symptom was produced further than the evacuations with the expulsion of the worm.

Case 3. A man, aged 43, complaining of the anomalous symptoms above designated. The dose of the medicine administered here was increased until he took at one draught four fluid ounces; this was at seven o'clock in the morning. He was soon purged, and experienced no ill effects until four o'clock in the afternoon, when slight strangury, pain in the head with giddiness, and acceleration of the pulse, came on. Barley water, with some castor oil, removed these symptoms in a few hours, and his other complaints were cured.

Case 4. Sunday, January 14th, 1816.—A stout man complaining of anomalous symptoms, took this morning, at seven o'clock, one ounce and a half for his first dose. In about three quarters of an hour, he felt an inclination to have a stool, and in the attempt to get out of bed for the purpose of going to the closet, he fell backwards, and was seized with spasms; this attack was quickly succeeded by a severe epileptic fit, which continued for thirty minutes, and left him senseless. In the course of the day he had three more fits, as severe as the first, and during the ensuing night, and the early part of the next day, he suffered constant spasms and twitchings. His countenance was sometimes much flushed, at others pale; his breathing occasionally sonorous and laborious, but generally quick; his pulse was oppressed and full, and sometimes intermitting; the heat of his skin was also irregular. His belly was hard and distended. He had involuntarily voided, during the fits, a small quantity of urine; but in consequence of the distention of the lower part of the belly, the catheter was introduced, and two ounces only of very pale urine, smelling slightly of the turpentine, were passed. No evacuation, per anum, took place until the middle of the following day, and he was in a state perfectly senseless until that time.

At one period, I considered the case as likely to prove fatal, and am convinced that such would have been the result, had not the most attentive and active treatment been pursued. When he became purged, the amendment first appeared. On Tuesday the spasms had entirely ceased, his urine was now bloody and thick, and voided not without uneasiness; he suffered pain in the region of the kidneys.

and constant pain also in the head. His bed had the odour of a strong bed of violets. Mild emulsions, diluents, and purgatives were now employed. On Thursday the urine became clear, and no distress remained except the pain in the head. On the ensuing Monday a seton was made in the nape of the neck, slight aperients were administered, and the warm bath directed to be used at a low degree of temperature. With this treatment, slightly varied, he was shortly discharged, cured.

Case 5. A boy, nine years old, had, when at the age of five years, a strong epileptic fit. He had another less severe in three weeks; this was followed, after short intervals, by others, differing in their degree of violence. For the last two years he has been in a state of idiotism, and has not passed one night during the last thirteen months without a fit, and he has frequently had them in the day. One night he had twelve. His urine is passed involuntarily; but he has the power of retaining his stools, which are very irregular, and his bowels are generally costive.

This boy commenced the use of the ol. terebinth. rectif. on the 15th of February, and left it off on the 7th of April; and during the period here indicated, he took of it two pints and ten ounces. It was administered at first in the doses of half a dram four times in the day, and the dose was at length increased to three drams, which was not at any time exceeded, whilst it was continued for nine successive days.

From the 15th of February to the 1st of March he had nineteen fits, which occurred after longer intervals, were less severe, and of shorter duration than heretofore. From the 1st of March to the 28th of the same month, he had no fit. On the 29th he had a very weak fit, which lasted about five minutes. From the 29th to the 16th April he had not a recurrence of the paroxysm. On the 16th of April he left the hospital at the request of his parents.

The changes that resulted from this treatment was as follows.—

1st. The pulse at the commencement was irregular, small, and quick. On the ninth day of the treatment it became regular, but continued small and quick. This regularity was disturbed for a few days; but ultimately the pulse was free, soft, and regular.

2dly. The bowels were slightly purged, and regular. No worms were voided.

3dly. The incontinence of urine was entirely obviated.

4thly. The fits, when they occurred, were less severe, and took place only after longer intervals, and the patient had

but one fit during the subsequent six weeks, and that lasted only four or five minutes. And,

5thly. At first his intellects were so dull, that he was perfectly idiotic; when he had taken the medicine about three weeks, he became noisy, mischievous, and very troublesome, and occasionally would point to his head as if in pain there. In this state of cerebral excitement, he continued for a week. He then improved, and the amendment continued progressive, showing itself by a remarkable docility of disposition, and by a desire to read and to write.

The length of time during which this boy had laboured under his malady having been so considerable, the permanency of his improvement may be very doubtful, and I cannot, by any means, consider him as cured. But, so obvious and striking was the amendment in this case, it excited in me sensations so gratifying, peculiar, and inexpressible, that although the cure may be imperfect, I am still desirous of relating it in this paper, in order that other practitioners may give it a trial in similar, hopeless, and melancholy disorders.

In continuing to relate additional cases, I should only offer a tedious repetition of such as have been favourable; for I have nothing to record of a contrary kind, beyond those I have noticed in a former part of this memoir. In making this selection, I have had principally in view such cases as have reference to the administration of the oil in large and frequent doses; because in small doses it has, for many years, received the sanction and recommendation of estimable authorities.

This recommendation, however, was accompanied with a caution to limit with accuracy the dose to a few drops; and in order to enforce this caution, cases have been detailed, in which the most violent, and, in some instances, fatal effects, were the consequences of exceeding the prescribed dose. Where death or severe disease has been the consequence, I consider that we are *either* to attribute it to some idiosyncrasy of the patient; or to the dose having been so intermediate between the small and the large quantity as not to have been sufficient to excite that energetic action on the stomach and alimentary canal, which appears from recent experience to be its more immediate operation. If we should suffer the first of these causes, namely, some idiosyncrasy, to deter us from the use of this or any other active medicine, it seems probable that, at no very remote period, we should relinquish some of the most important remedies that are now relied upon in the treatment of diseases; the use of which have been founded, for the most part, on

physiological reasonings and observed facts. Cases corroborative of this opinion are numerous and frequent; but I will nevertheless mention two, which regard the use of that powerful medicine, mercury.

A man, aged thirty-five, labouring under certain complaints for which mercury was considered necessary, commenced by direction to rub on his legs and thighs one drachm of the unguentum hydrargyri fortius on a Tuesday night. This was repeated on the Wednesday, Thursday, and Friday nights, when a severe ptyalismus supervened, his face swelling much, accompanied with a copious discharge of saliva. Upon this the friction was omitted. He was debilitated, and his bowels severely affected with diarrhœa; this was at first slightly encouraged, and then moderately checked. Early in the morning of the following Tuesday, great prostration of strength suddenly occurred, his pupils were insensible and contracted, his extremities cold and livid, he passed into a comatose state, and died on the Wednesday night. It appears that the quantity of ointment used was only four drams; and this quantity produced consequences rapidly fatal.

At the time the last-mentioned patient was under treatment, a female, aged fifteen, had used, by means of friction, in the course of four weeks, nearly four ounces of the ointment prepared in the same manner, and had taken, in small doses, during this period, as well as three weeks previously, several drams of the submuriate of mercury, without any apparent effects.

Are we then to abrogate the use of mercury in the treatment of diseases? Or, are we even to be more scrupulous than hitherto in the use of it, on account of such cases as those which I have related? Upon similar grounds I consider we are to decide upon the use of the oleum terebinthinæ rectificatum, when administered in large doses; although the results of the fourth case related in this paper, were unfavourable or deleterious.

In cases where any idiosyncrasy does not appear to exist, I should refer the deleterious consequences to the dose not having been large enough; for instance, forty or fifty drops given twice or three times a day, will often produce strangury and bloody urine, with the other ordinary concomitant symptoms, whilst in the same subject one, two, three, or four ounces, cause no such effect; but operate in the manner described in this memoir.

Experiments and observations, which I do not think it necessary to relate here, have led me to entertain an opinion that where the small doses have been given and followed

with the violent symptoms remarked by the older authors, the oil being retained too long in the stomach, exerts an undue action on the nerves of this organ; and by sympathy or other relations, on the functions of the brain; and hence the respiration becomes disturbed, and the secretions are changed and vitiated, but more particularly that of the urine; and according to the extent of this preternatural action or excitement, we are to expect more or less of severity in the consequent symptoms. This I will briefly illustrate by an experiment. A man took early in the morning one dram of the oil; in about ten minutes, he began to experience a sense of heat at the stomach, which was followed by pain in the head, his pulse and respiration became quickened. He shortly afterward voided a small quantity of urine, denoting the effects of turpentine. In the course of three hours he became easier. In the afternoon he had a slight return of these complaints, and the urine presented more powerfully the odour of the oil. At five o'clock in the afternoon he had a gentle purging evacuation; the above-mentioned symptoms then began to subside, and soon totally disappeared. Four days afterward he took another dram of the oil;—in about forty minutes he suffered the sense of heat at the stomach, and the pain in his head, as described in the last experiment; immediately he took one ounce and a half more; the symptoms did not increase in severity, he was quickly purged, and by noon he experienced no effects of the medicine. For these reasons I am of opinion that it is better to give the oil in doses of an ounce and a half or two ounces, repeating it at the intervals of an hour, according to circumstances, than to give, at one dose, the same quantity as was taken in Case 3 of this paper. Because, if the immediate effects were of the most aggravated kind, then, I conceive, a repetition of the medicine would be rapidly fatal; on the other hand, if symptoms were to follow similar to those which appeared subsequent to the experiment, then I should rely upon a repetition; knowing, from a number of other experiments, where this medicine, in small doses, operated in the way mentioned, that the most efficient remedy is, the immediate administration of a large dose, by which the energetic action of this oil is demonstrated.

I could bring forward additional facts and experiments; but I trust that I have here presented such a series of observations, as will be deemed sufficient to direct the attention of other practitioners to this remedy in a manner commensurate with its merits.

The author cannot allow this opportunity to pass without

thanking the medical officers attached to the hospital during the period referred to in the course of this paper, for the kindness and indulgence he experienced from them collectively, but more particularly the superintendent, Dr. Kerr, whose attention was very much directed to the facts herein detailed. The author further begs to say that if the officers belonging to eleemosynary institutions will give the medicine a full trial, he is convinced that the funds of these charities will be thereby materially benefited.

*Hanover-Street, Hanover-Square.
London, 1821.*

II.

Annual Report of the General Committee of the Associated Apothecaries and Surgeon Apothecaries of England and Wales, received and adopted at the Annual General Meeting of the Association, held by Public Advertisement, at the Crown and Anchor Tavern, Strand, July 3d, 1822.—Joseph Hayes, Esq. President.

YOUR Committee, with all due respect, submits to the general meeting the following report of its proceedings during the past year, and of the present state of the Society.

From the formation of this Institution, the principal object which the association has had in view has been the advancement of the usefulness and respectability of the medical profession, by effectually restraining the uneducated and the ignorant from practising an art, which, above all others, requires patient study and close attention, investigation the most minute, knowledge the most varied, and application the most intense.

It was soon perceived that this end was attainable only through the medium of legislative interference. The necessary interposition was therefore respectfully sought for, and principally through the exertions of this Society, and to a certain extent obtained.

Had the Act of Parliament alluded to been efficient to the purposes required, little had been wanting to the public security from the misconduct of rash pretenders to medical skill, or to the well-being of the general practitioner; but while it is acknowledged by all who are competent to judge, that in the law referred to, ("commonly called the Apothecaries' Act.") there are ambiguities and defects, which can be remedied only by a new enactment, your Committee regrets that no favourable opportunity has offered of applying to Parliament for relief.

From such an application the Committee has been deterred by different considerations; the fate of the Surgeons' Bill, and even of the Apothecaries' Act, 'curtailed of its fair proportions,' during its progress through the Upper House, tended greatly to discourage such a step; nor did the state of the funds warrant an attempt which would certainly be expensive, and probably unsuccessful; a still

more cogent objection existed in the paucity of information, yet prepared to be laid before Parliament, as to the abuses which prevail.

To collect proofs of mal practices, and to acquire extensive intelligence of the various and complicated mischiefs which are perpetually springing from the gross ignorance and often unprincipled conduct of empirics, has been the constant aim of your Committee ; for this purpose a correspondence has been carried on (through your secretary) with the most intelligent and respectable practitioners in different parts of the kingdom, and every accessible source of information appealed to ;—the result has been conformable to the apprehensions of the Committee ; and the public, as well as this Society, will soon be made acquainted with a frightful detail of evils, which unhappily, however deeply they are to be deplored, do not seem, at present, within the reach of any adequate remedy.

The state of midwifery, in particular, is deserving the most serious attention of the Legislature ; exercised as that art frequently is, by persons without the slightest pretension to anatomical or medical knowledge. It is painful to contemplate the miseries which are inflicted by the ignorance and violence of men who unblushingly profess an acquaintance with this branch of the profession, though they have but recently followed the plough, or laboured at the loom. Nevertheless, your Committee does not despair of future melioration.

“*Quicquid erit superanda omnis fortuna ferendo est.*”—*Virgil.*

When more numerous instances shall have been collected (and it cannot be doubted that they are every where to be found) and when these shall have been so arranged and embodied as to supply convincing proofs of the necessity of legislative measures, then will have arrived the proper time for an application to Parliament; we may then reasonably claim attention and expect redress.

The protection not merely of ordinary sufferers from mischievous and often fatal treatment, but of afflicted mothers and their helpless infants, cannot be deemed unworthy of the especial deliberations of an enlightened legislature.

Meanwhile the Committee recommends to every member of this extensive association to acquire and transmit information of glaring ignorance and misconduct, wherever they may be found, to the secretary ; that it may be maturely reflected on, and, if necessary, forwarded to the Society of Apothecaries for ulterior consideration.

Since the last annual meeting another instance has been afforded of the utility of the Apothecaries' Act by the successful prosecution of an individual not duly authorized to practise medicine ; and that society has further declared itself ready to enforce the provisions of the Act against all who wantonly violate it, whenever conclusive evidence against the offenders can be obtained.

In collecting and forwarding such information, it is earnestly recommended that the greatest care be employed to avoid exaggeration or misstatement, that truth only be the basis of the communi-

tion : rather "extenuating than setting down aught in malice ;" and bave all, that the energies of its members be in every possible mode directed not merely to the peculiar interests of the association, but to the advancement of science, the honour of the profession, and the public welfare.

Your Committee now gladly turns to another and more pleasing part of its duty, viz : to announce that the several resolutions, Nos. 15, 16, 17, 18, 19, 20, and 21, passed at the last general meeting, relative to the publication of a volume on medical topics, have been complied with ; the zeal and industry of the profession have supplied several essays, which, while they reflect credit on their respective authors, will, it is confidently anticipated, confer additional estimation on the profession itself, both by increasing the mass of practical information, and giving it a wider spread.

The printing of the volume alluded to, to be entitled "*Medical Essays and Observations, published by the Associated Apothecaries and Surgeon Apothecaries of England and Wales,*" has been delayed by circumstances which it would be useless to specify ; but the gentlemen to whom your Committee referred the arrangement of the papers, announce that the work is in the press, and that it now waits only for the receipt of the subscriptions necessary to secure the Society from incurring any loss by a measure which the proposers intended for its welfare and advancement.

The mode of publication adopted is calculated to supply to every *subscribing* member an interesting volume, at a small price, and yet, by its sale, ultimately to sustain the diminishing funds of the Association.

At the commencement of an undertaking so novel, difficulties were to be expected—the avocations of some practitioners, and the timidity of others, tended to restrain the pens of gentlemen well qualified to detail interesting cases of disease, to investigate the causes and symptoms, and to suggest improved modes of treatment ; but it may reasonably be hoped, that the members of the Association, in possession, as they must be, of much and valuable information, will hereafter feel less reluctance to write, and that from year to year our projected volume will increase both in magnitude and excellence.

Of the merits of the publication in question it might have been difficult for your Committee to descant, were it not that practitioners of deserved celebrity have contributed to the stock of information ; more than one physician, unconnected with this Society, except by an ardent desire to promote its welfare, and to benefit mankind, have obligingly furnished communications which would do honour to any existing work. It is not to be doubted that these will, on future occasions, be augmented in number, and serve materially to enhance the value of the book.

The state of the funds will be laid before you ; it will there be perceived with regret, that notwithstanding the strictest economy on the part of your Committee, the expenditure far exceeds the regular income, and that in the event of again petitioning either

House of Parliament, another call must inevitably be made on all the members of the Society.

Actuated by no sinister motives—seeking no exclusive advantages, having in view less the *interests of the profession* than of the *community* at large, your Committee begs leave to express its decided opinion, that this Association is fairly entitled to the firm support, and zealous co-operation, not only of its own members, but of every enlightened medical practitioner, and to the countenance and good wishes of all feeling and virtuous men.

JOHN POWELL, *Secretary.*

1, Keppel-Street.

III.

Remarkable Case of extensive Visceral Disease, attended with some peculiar circumstances. By JAMES JOHNSON, M.D.

MAJOR LEONARD, ætat. 65, residing in Crawford-Street, had been complaining of stomach and biliary affections for ten years. About six years ago he found himself seized with dyspnœa and palpitation, on making any sudden exertion, or ascending an eminence. He noticed at this time also, that his pulse habitually intermitted. During the last four or five years, his stomach was much out of order, his stools irregular and of various colours, and his spirits sometimes depressed. About eighteen months ago he applied to Dr. Scott, who desired him to use the nitro-muriatic acid bath. From this application he derived the greatest benefit, and never afterward left it quite off. It always relieved the uneasy sensations in his stomach, changed the colour of his motions, and improved his appetite. Last summer a considerable rash came out on his arms, thighs, and legs, producing great irritation in those parts; but during this eruption, his breathing was freer, his appetite better, his digestion easier, than for several years past. The eruption continued out more than two months, and toward its decline, about the middle of July last, he consulted me. He had then dyspnœa on going up stairs, his pulse was very irregular, feeble, and intermitting. His urine was getting scanty and lateritious, he had slight cough, and a trifling mucous expectoration.

On examining the chest it sounded badly on both sides, but especially on the right side. The action of the heart could be heard over a greater surface than in a healthy state, viz. over a diameter of six or eight inches, when the ear was applied to the chest. He was ordered the decoction of taraxacum, with one grain of blue pill and three of aloetic pill every night, regulating carefully his diet, and desiring him to live very quietly. Under this plan his urine became free, his motions better coloured, and his appetite keener. I only saw him about once in a month, till the 16th December, 1821, when he came to me, complaining that his appetite had left him rather suddenly; that he had sickness, and even vomiting, after eating; that his breathing was very uncomfortable after using any

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THE
Medico-Chirurgical Review,
AND
JOURNAL OF MEDICAL SCIENCE.
(*Analytical Series.*)

"Nec Araneorum textus ideo melior, quia ex se fila fingunt; nec noster vilior, quia ex alienis libamus, ut apes."

VOL. III.] DECEMBER 1, 1822. [No. 11.

I.
PATHOLOGY OF THE BRAIN AND ITS
APPENDAGES.

Recherches Anatomico-Pathologiques sur l'Encephale et ses Dependances. Par F. LALLEMAND, Professeur de Clinique Chirurgicale a la Faculté de Medecine de Montpellier; Chirurgien en Chef de l'Hôpital Civil et Militaire de la meme Ville, &c. &c. Lettres Premiere, Deuxième et Troisième, 3 vol. 8vo. p. 512. Paris, 1820-21.

"Ars Medica tota in Observationibus."—*Hoffman.*

"Neque enim numerandæ sunt, sed etiam perpendendæ Observationes."—*Morgagni.*

IN the 8th Number of this series, we presented the English reader with a comprehensive analysis of Duchatelet's and Martinet's important work on ARACHNITIS, and we have reason to believe, that the information therein contained, is exciting considerable interest in the profession, and is likely to be productive of much benefit both in diagnosis and therapeutics. The work before us is more comprehensive in its scope, and embraces the pathology of the brain generally. Like that on ARACHNITIS, it is the patient result of laborious observation—founded partly on materials collected in public hospitals, partly in the private practice of the author and his friends.

M. Lallemand, after some judicious preliminary observations on the difficulty of recognising, classing, and treating cerebral affections, proceeds to the distribution of his subject, in the following manner.

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I. Affections of the Brain, exempt (as much as possible) from Complication.

- A. Sudden congestion—hæmorrhagic effort short of extravasation, (coup de sang)—with extravasation of blood, (apoplexy.)
- B. Inflammation of the brain.
 - First stage.* Softening of the brain, with vascular injection, infiltration, or extravasation of blood.
 - Second stage.* Softening of the brain, with puriform infiltration, or incipient suppuration.
 - Third stage.* Abscess.
- C. Chronic affections of the brain; as encysted abscesses—scrofulous tumours—tumours of a fibrous, osseous, scirrhous, or cancerous nature—hydatids—foreign bodies.

II. Affections of the Tunica Arachnoidea.

- A. Sudden congestion—sanguineous or serous exhalation.
- B. Acute inflammation, in different degrees, marked by suppuration, turbid serosity, milky or gelatinous effusion.
- C. Chronic inflammation, including thickening of the arachnoid, induration of the same—diminution of its transparency—granulations on its surface.
- D. Acute hydrocephalus.
- E. Chronic hydrocephalus.

III. Affections of the Brain and Arachnoid complicated with one another.

IV. Diseases of the Spinal Marrow and its Coverings.

Our author properly observes, that we must not neglect to study the influence of cerebral affections on the symptoms and march of thoracic and abdominal diseases, and vice versa. We should bear in mind, for example, the influence of enlargements of the heart in the production of apoplexy—and the still more remarkable influence of gastric, hepatic, and intestinal affections on the brain; and of affections of the brain on the functions of the digestive apparatus. It is rarely, indeed, that a patient dies of a simple and single affection. Almost always there are several organs simultaneously or successively invaded. Then, as one or other disorder predominates, the others become proportionally obscured. Formerly, (and even still,) the practice too much obtained of examining, after death, only the organ or quarter where the disease seemed to hold its principal seat; and when the *post mortem* appearances did not correspond with the symptoms, the practitioner contented himself with ranging the disorder with the anomalous and inexplicable. The minute attention with which pathological investigations are now carried on,

enables us very generally to detect the seat of disease, and appreciate the influence of local affections on the various structures and functions of organs at a great distance from the original focus of these affections. We shall now proceed to follow our author through the divisions and subdivisions traced out in the arrangement above described.

I. Softening of the Brain, with Vascular Injection, &c. Of those who have more recently noticed this pathological state of the brain, Recamier, Bayle, Cayol, and Brichteau, are most conspicuous. The term "softening," (ramollissement) has the advantage of conveying an exact idea of the state of the parts affected, without prejudging the cause of the phenomenon. By "softening" of the brain, our author means a kind of liquefaction of a portion of its substance, the rest preserving nearly its usual consistence. He lays emphasis on "*a portion*" of the brain; for when we find the *whole* of this organ in a softened state, doubts may be entertained whether it results from disease, or from *post mortem* changes. It is well known, that the brain and spinal marrow very quickly lose their consistence after death, especially in a hot and damp atmosphere, and where the patient has died of dropsy, phthisis, or other disease, that slowly, but greatly deteriorates the powers of life. To form an estimate, without prejudice, of the pathological softening of the brain under consideration, we must have the means of comparing it with other portions of the same brain, where no such change had taken place. M. Lallemand does, indeed, not deny that, the whole of the brain may undergo this change during life; but he rejects these instances from his account, for the sake of obviating objections that might be made against the principles which he endeavours to establish.

The first cases of the disease in question, which have been accurately described, are to be found in that great emporium of facts—the work of Morgagni. The history of Jacoba Zanardi, among others, is very remarkably in point.

Case 1. Jacoba Zanardi, of Padua, aged 59 years, was seized with paralysis and fever, for which she was sent to the hospital, where she only survived a few days. On her entrance, although unable to speak, she seemed to comprehend, for she presented her *left* arm to the physician, that he might feel her pulse—the *right* extremities being insensible and motionless. There issued, says Morgagni, much serosity, when the calvarium was removed—the vessels of the arachnoid were injected—there was serous effusion under this membrane, as well as in the lateral ventricles. When the *left* plexus choroides was raised, it was remarked that the thalamus of that side was not of its natural colour, but of a brownish hue.

On dissecting, with the greatest care, all the other parts of the brain, they were found perfectly healthy, except a portion of the left thalamus which was "*extremely soft, almost fluid, and blended with a sanguineous humour, so that it appeared, as it were rotten.*" The extent of this altered part was about the size of a large nut." All the other parts of the brain were very firm and natural. *Epist. 5, No. 6.*

The above case of Morgagni's is certainly very striking. It is evident that he considered the morbid alteration described as a product of inflammatory action, since, he remarks, there was only wanting the fœtor, to make the resemblance perfect between it and gangrene. "*Nibil nisi gravis odor deesset ut plane frigidam pronunciaret.*" The title of this Epistle, it may be observed, is—"Apoplexy which is neither sanguineous nor serous"—and Morgagni's ideas are still more unequivocally expressed in the following sentence:—"Apostema sui generis fuisse hoc credo, agnoscente etiam Avicenna apoplexiam a repletionem apostemante."^{*}

M. Dan published an inaugural dissertation on apoplexy "considered especially as the effect of inflammation of the substance of the brain," in the year 1807, in which there are several cases related, analogous to the one above quoted from Morgagni. The following short sketches will serve as illustrations of the subject on which we are engaged.

Case 2. A mendicant, 78 years of age, entered the HOTEL DIEU in a state of slight apoplexy, after having suffered for some time an incomplete paralysis of the right arm. The sense of this patient was obtuse, the motions feeble, sluggish, and difficult—especially of the right side of the body; at the same time there was a degree of rigidity in the flexor muscles. He was sometimes somnolent, sometimes in a state of agitation. These symptoms continued the same for some days, at the expiration of which, he lost speech, motion, and sensibility, when death closed the scene.

Dissection.—The substance of the brain, for a space of about two inches square, in the posterior inferior part of the left hemisphere, was in a state of putridity (putrilage;) the circumference of the disorganized portion being reddened to the depth of two lines. P. 9.

Case 3.—Here our author relates a somewhat analogous case that occurred at the Hotel Dieu, under the eye of himself and his friend Dr. Patissier. The subject was a woman

^{*} We wonder that the following remarkable passage, quoted by Boetius from Willis, (*Cerebri Anatom. c. 13.*) should have escaped our author, since it is exactly in point. "*Cum enim aliquoties cadavera quorundam à longè paralyti et gravissima nervorum resolutione defunctorum aperuerim, deprehendi semper corpora striata præ aliis in cerebro minus firma, iustar amorem discolorata, et striis multum oblitteratis.*"—*Boet. Lib. I. Sect. XV.*

80 years of age, who, for a long time, had been troubled in her intellects, and was become morose and irascible. She entered the hospital for a stomach complaint, and was almost always dozing. An emetic was prescribed, which dissipated these symptoms; but they soon returned, and in greater force. Having passed several weeks in a stationary state, she, all at once, lost the senses of hearing and sight, experiencing, at the same time, convulsive twitchings of the *right* arm, and soon after falling into a state of profound stupor. Presently the *right* arm became motionless, but not insensible, the pupils being immoveable. Derivatives of the most powerful kind were tried, but in vain. She died in three days.

On dissection, the vessels of the brain were found gorged with blood. In the middle lobe of the *left* hemisphere, there was found a softened portion of brain—"the *corpus striatum* was reduced to a *bouillie*." In the middle of this disorganized portion, some blood was found extravasated.

A case is next quoted from Dr. Abercrombie's paper (case 1) in the *Ed. Journal*, for July 1818, which is sufficiently in point, and to which our readers can easily refer. In the following case, the morbid structure was found in both hemispheres, yet the symptoms were not the same in both sides of the body.

Case 4. A very old woman was brought into the Hotel Dieu on the 15th January, who, according to the account of her friends, had been deprived of sense and power of motion, for fifteen days, subsequent to an attack of apoplexy. (Sinapisms to the feet, and infusion of *arnica montana*.) Next morning she was more carefully examined. There was paralysis of the whole of the *left* side, with great flaccidity of the muscles and mobility of the joints. On the *right* side, the muscles were in a state of rigid contraction. The face was pale and livid—the mouth slightly drawn towards the left side—the lips, teeth, and tongue fuliginous—pulse hard, small, and frequent—respiration frequent and laborious. She continued three days without any change—on the fourth, *subsultus tendinum*—and on the fifth, (20th of the disease,) she expired.

Dissection. The whole surface of the *right* hemisphere was softened, more deeply in the superior and middle part. This degeneration was about a square inch in extent, and felt quite fluid between the fingers, but without change of colour. About an equal extent of the *corpus striatum*, of the same side, was reduced into a putrid-looking mass, the colour of lees of wine. This focus was not so exactly limited as in sanguineous apoplexy, but insensibly lost itself in the surrounding parts. Some small portions of the *left* hemisphere were also softened; but the rest was sound.

This case puzzled our author a good deal at the time of its occurrence; for he had remarked that in all other cases

of softening of the brain, there was *rigidity*, or occasional spasmodic twitchings of the paralyzed members; whereas, in the present case, there was remarkable *flaccidity* of the paralytic side. Our author's attempt to account for this anomaly may be ingenious, but is not quite satisfactory to our comprehension, and therefore we shall not stop to introduce it here. Unaccountable anomalies will occur in all diseases—and in none more frequently than in affections of the brain.

Case 5. The next case recorded by our author was that of a woman, 54 years of age, who had enjoyed good health, but had, for some time, so far lost her sight, that she could not distinguish objects at even a very short distance. Her eyes appeared perfectly sound. On the 1st November, 1817, she lost, all at once, the power of speech; and on the 5th, was carried to the Hotel Dieu. No details of what had passed in the interval could be obtained. The patient understood well what was said to her; but when she wished to return answers, she could only utter inarticulate sounds—she otherwise appeared to be in good spirits. The motion of the tongue seemed free, but the organ inclined a little to the right, when the point was beyond the lips. There was no paralysis of either side—the surface was sensible—the pulse was small, feeble, frequent, and irregular. *Four leeches behind each ear*—in the evening a blister to the nape of the neck. 6th & 7th. No alteration. On the 8th a laxative glyster was administered; and that day she could pronounce some monosyllables, as *oui* and *non*. On the 9th, complete paralysis of the *right* side, without rigidity. The mouth was drawn to the opposite side. *Six ounces of blood abstracted*. 10th. Total insensibility of the surface of the paralyzed side—strabismus. 11th. Same state. 12th. The patient died.

Examination. The vessels of the dura mater and arachnoid very much injected. The latter membrane was raised from the pia mater by a serous infiltration between the two. On the anterior lobe of the *left* hemisphere the pia mater was found so adherent (for a space of three inches) to the cortical substance of the brain, that when stripped off, a portion of brain came with it. Opposite to this adhesion the brain was soft as bouillie, in the middle of which softened portion, two small extravasations of blood were found, each the size of a pea. The cerebral substance surrounding these was softened to the middle of the centrum ovale, where it appeared yellow. The lateral ventricles did not contain much serum, but the arachnoid lining them was covered with very fine granulations. Nothing wrong in any other part of the brain. P. 21, 22.

The gradual development of the paralysis in this patient is very remarkable. First, the sight became affected—then the speech—thirdly, the tongue pointed to one side; and, fourthly, hemiplegia became complete. On dissection. two

clots of blood, though very small, were seen ; and thus we are led to the first grade, as it were, of apoplexy. The firm adherence of the arachnoid and pia mater to the subjacent cerebral substance, argues, in our author's mind, and fairly we think, that *inflammatory* action had been going on in this diseased portion. It is almost unnecessary to remark that the treatment employed in this case, as in most others in French practice, was any thing but correspondent with the conclusions drawn from the post mortem researches ! We are not, however, seeking therapeutics but pathology in the present instance. Our readers well know how to turn to good account, on this side of the channel, the facts which we are now drawing from a distant quarter.

Case 6. A widow woman, 54 years of age, had, for ten years, experienced great domestic affliction and mental anxiety, at the end of which time, the intellectual functions became disturbed, with debility, general prostration, and almost constant headaches. On her entrance into the Hotel Dieu, in 1816, her features exhibited the air of great melancholy ; and she kept in a sitting posture, as the headache was much augmented by the horizontal position. The respiration was difficult, the pulse irregular and intermitting, the motions of the tongue embarrassed, the muscular force diminished, the extremities benumbed, and the legs and feet œdematous. The arms were occasionally agitated with weak convulsive movements, and a slight subsultus tendinum was felt at the wrists. Gradually the muscular power, especially of the right side, (the diminished sensibility of which had given place to a sense of formication,) became weaker, and complete paralysis of the *right* side occurred in the night, a month after her entrance into the hospital. The means used were trifling and unsuccessful ; and in ten days after this occurrence, the patient experienced violent pains throughout the whole of the paralyzed side, which caused her to cry out piteously. Next day she expired, with tetanic rigidity of the paralyzed side.

Dissection. The vessels of the pia mater and arachnoid much injected, and the membranes themselves separated by a gelatinous effusion, like that sometimes seen under a blister. These membranes were easily raised from the subjacent brain, except on the upper part of the *left* middle lobe, where a portion of cerebral substance came away with the arachnoid adherent to the pia mater, of about two inches in extent. The convolutions of the brain, corresponding to this, were flattened, and quite softened, to an inch in depth, the rest of the brain being the firmest our author ever remembers to have seen. In the centre of this softened portion, which was of a greenish yellow colour, was seen a kind of focus or depôt (foyer) the size of a nut, of a dark brown colour, formed by blood, partly extravasated, partly infiltrated, and mixed with the cerebral substance. 27.

Our author thinks it rational to suppose, that chronic in-

flammation of the arachnoid, by keeping up a habitual congestion in its vessels, terminated in one of those more sudden processes, and incipient hæmorrhage in a portion of the cerebral substance immediately adjacent to the inflamed membrane—and that the presence of this effused blood excited inflammation, or in other words, *softening* of the parts of brain in its vicinity and contact. We have little doubt, indeed, that this softening process is the product of inflammation or congestion of the vascular system of the part.

Case 7. The following case* may prove a caution to our junior brethren, not to neglect contusions about the head, particularly in young people. A young man, 17 years of age, of sanguineous temperament, received a blow, by a stone, on the right temple, towards the latter part of June, 1806, which was accompanied by some loss of blood. About the middle of July, he began to complain of headaches, weakness and pain in the extremities; while his intellectual faculties became considerably disturbed. On the 17th of August, whilst his mother was assisting to dress him, he suddenly lost the faculty of speech, and the power of motion in the *right* side. The pupils were dilated; the paralyzed members preserved their sensibility, and were even painful to the touch; the pulse was frequent; and in the evening, there was a febrile exacerbation. In this state, he was carried to the Hotel Dieu, on the 19th of August. On the following days, the right upper and lower extremities became considerably œdematous. On the 30th, he became suddenly comatose by a new attack of apoplexy, in which he lost the use of the *left* side. He died next morning.

Dissection. "Three table-spoonfuls of bloody serum in the *left* lateral ventricle—some reddened points on the arachnoid covering the thalamus and corpus striatum. Under the anterior part of the *left* ventricle, the substance of the brain, about an inch and a half in extent, was of a deep red colour, the centre of this portion being softened into a kind of semi-purulent condition. In the *right* ventricle was found a clot of black blood, in quantity about an ounce and a half. Under, and behind *this* ventricle, embedded in cerebral substance, was found a clot of black blood, of considerable size. There was some blood extravasated about the commencement of the medulla spinalis." 30.

The above case may give foundation to several useful reflections. In the first place, we observe that, although the contusion was on the *right* temple, the disorganization was

* Reported in Dan's Dissertation, before alluded to.

in the vicinity of the *left* ventricle, illustrating what has been not inaptly termed "*contre-coup*," the symptoms of which were produced about fifteen days after the infliction of the injury. At the end of six weeks, weakness of the extremities was changed into complete paralysis of the right side—with *augmentation of the sensibility, and even of the pain, on pressure*. We may fairly conclude, that the redness of the ventricular parietes, and their reduction into a semi-purulent, soft mass, was the genuine product of inflammation.

Thirteen days later, and we see the *left* side become paralytic; but in this instance, the *sensibility* is lost, and we know that this paralysis owed its origin to *effusion of blood* on the opposite side of the brain. Here then, in the same individual, we have softening of the brain, and apoplexy—two diseases whose symptoms distinguished them during life, and whose pathology we see was sufficiently distinct after death. The hæmorrhage, which ultimately proved fatal was doubtless determined by the neighbouring congestion and inflammation.

Case 8. Passing over several cases, we come to one (13th) presenting some interesting complications.

Anne Benoit, 54 years of age, was of a strong and plethoric constitution, but not very regular in the menstrual evacuations. At each catamenial period, she experienced vertigo and dimness of sight. In 1814, at the age of 51, these symptoms amounted, according to her own account, to a slight attack of apoplexy, but without leaving any paralysis. After this, the cerebral affections became more grave, so that she dared hardly to stoop, without risk of tumbling down. On the 27th of November, 1817, she experienced a more than usual degree of congestion about the head, with loss of sense for a short time. Leeches were applied to the pudendum, and antispasmodics were exhibited by a physician, but without any advantage. On the 28th she entered the *Hôtel Dieu*, and our author found the patient in a comatose state, the eyes closed; but when excited, she could open the *right*, and not the left eye. She answered questions with difficulty, but made it understood that she felt a numbness of the right side, without any muscular power or sensibility to the touch, in the extremities of that side. The face and neck were very turgid and of a lived hue—the jugular veins, on both sides, were as large as a man's finger, and pulsated regularly with the heart; yet the pulse in the arm was feeble and irregular, the action of the heart being remarkably strong, and exhibiting a striking contrast with the pulse at the wrist. There was great pulsation at the epigastrium, and, indeed, through-

out the abdomen. Our author instantly opened the jugular vein, without pressure below the orifice, and the blood sprang to a great distance, coming per saltum from the vessel as from a large artery. As the blood flowed, the face lost its violet, and ultimately assumed a pallid hue—the motions of the heart were still irregular and tumultuous, but became more distinct—the pulse at the wrist continuing the same. In an instant almost, five platters (four ounces each) were filled; and when our author stopped the flow, convulsive movements were taking place in the extremities of the right side, and in the muscles of the face on the *left* side. For a quarter of an hour the convulsions were so strong that M. Lallemand could only arrest the hæmorrhage by keeping his finger on the orifice. Even after the convulsions had ceased, he found it a hard matter to stem the effusion. In a little time after the bleeding, the motions of the heart became more regular, and the respiration easy. 29th. The paralysis was complete of the *right* arm and *left* eye. The patient had several epilepti-form convulsions in the course of this day—the state of the face, pulse, and heart becoming the same as before the bleeding. Eight ounces of blood from the feet—the least pressure on the epigastric region renewed the convulsive movements—skin hot and dry. 30th. This was the fourth day of the disease. The face was livid, the lips black, the breathing stertorous, pulse scarcely perceptible, complete abolition of sense, retention of urine. Died at nine o'clock in the evening.

Dissection. The tunica arachnoidea thickened, red, and injected. It could be stripped off every part of the brain without being torn. Being well washed, it was found quite opaque. The central part of the right thalamus was softened to the extent of about half an inch. On the surface of this thalamus, in the lateral ventricle, was a crust of coagulable lymph, or false membrane, which glued it to the septum lucidum opposite. In the *left* side of the brain, several points of the corpus striatum and of the tuber annulare were softened.

Chest. Lungs sound. Left ventricle of the heart very much thickened in its parietes, and lessened in its capacity. No stricture of the aortic orifice—dilatation of the root of the aorta into an aneurismal sac, capable of holding the two fists. The origins of the subclavian arteries were materially ossified, puckered, and contracted. Those of the carotids were natural. 52.

In the above case it is interesting to observe that the want of correspondence between the action of the heart, as felt on the chest, and that of the radial arteries at the wrists, is clearly explained by the state of the subclavians at their origins. In all cases, where we have noticed these non-conformities of action, and where we have had opportunities of *post mortem*

examination, we have found *anatomical* reasons for the phenomena; and, therefore, we do not believe that they ever exist independent of such causes. We are aware that Dr. Parry and others advocate the production of such anomalies in the pulse of arteries, by supposing different ratios of momentum in the circulation, without any mechanical obstruction; but we cannot, in our own minds, account for the phenomena in this way.

The aneurism of the aorta must have obstructed the free passage of blood from the left ventricle; and, consequently, kept up a congestion in the lungs, producing the trouble in the respiratory process, and, in fact, causing that turgescence of the face and neck so remarkably conspicuous when the patient was bled from the external jugular vein. It is by no means improbable that, the determination of blood to the head, so long observable in this case, was partly caused by the obstruction at the roots of the subclavians, which might fairly be supposed to produce a greater current through the carotids, which were free in their calibre. It should also be remembered, that the congested state of the venous system of the superior cava, must have kept up a fulness of blood in the head, and thus contributed to the cerebral affection. The appearances in the brain, on dissection, sufficiently account for the nervous phenomena exhibited during life. Lastly, the crust of coagulable lymph on the lining of the thalamus, may lead us to infer, that the corresponding softening of the substance of the same body, was a product of inflammation. The mal-practice of limiting the blood-letting to 20 ounces, under such a state of arterial and venous plethora as this patient exhibited, must be obvious to the veriest tyro in the profession, on this side of the channel.

We shall here introduce the particulars of a case from Bricheteau, which, at first sight, appears not exactly to correspond with the order of things hitherto observed.

Case 9. A woman, 34 years of age, had been valetudinary for some time, and subject to wandering pains of the head, &c. On the 21st of March, 1816, she became, all at once, insensible, and continued in this state till the next day, when she was conveyed to the Hotel Dieu. She was then in a profound coma, the head thrown backwards, the eyes fixed and squinting, the pupils contracted and immoveable, the members paralyzed and lying in any direction in which they were placed, little or no sense of feeling, breathing slow and stertorous, temperature and pulse nearly natural. Sinapisms, emetics, &c. without any avail. Died two days afterward.

On dissection, the brain, excepting the tuber annulare, presented no trace of disease. The tuber was reduced to a sort of bouillie. The cerebellum was sound.

Here then there was paralysis of *both* sides, though the lesion in the head was confined to a single spot; but, let it be remembered, that this part was precisely where the fibres of the cerebrum and cerebellum unite in communication with the spinal marrow. We need not wonder, therefore, that the effects of disorganization, in such a place, should be so very general.

Our author closes the narrative or historical part of this letter, with a statement of some cases from Morgagni, which tend to the same point as those which we have already analyzed. He then proceeds to comments or reflections on the facts which he has presented to his readers.

1. In the first place, he observes, that all the cases of "softening of the brain," were accompanied by well-marked vascular injection, infiltration, and even extravasation of blood, or a peculiar discoloration. An attentive examination of the cases disclosed various degrees of sanguineous injection, from the most simple distention of vessels, to complete effusion of blood, constituting apoplexy. The slightest degree of injection appears in the brain, where it is *not* softened, and in the membranes of the brain. We often see this injection, or as we should prefer terming it, *turgescence* of the vessels, without any other appreciable alteration in the brain or its coverings. It is then general, uniform, and may, even in a high degree, be sufficient to produce death.* When, under these circumstances, the brain is sliced with a scalpel, we see trickling from the surfaces, a great number of little drops of blood, which are reproduced if wiped away, and give to the medullary substance of the brain, a rosy tint. In cases, where there is softening of the brain, the vascular injection of the sound parts becomes more and more conspicuous as we approach the softened portion—a strong proof of the affinity between softening of the brain and hæmorrhage. The seat of this softening of the brain was found to be far more frequently in the corpora striata, or thalami optici, than in any one other part. In fact, the disorganization in question was situated in the above mentioned parts in one half of the whole number of cases—parts where, it will be remembered, apo-

* What, indeed, as we have before remarked on several occasions, can produce a greater degree of pressure on the whole encephalic mass, than a general turgescence of its arteries? If it be said that the brain is incompressible, and that there cannot be more blood within the cranium at one time than at another, we answer that, even upon this condition of things, much pressure may be made upon the brain by the *same quantity* of blood when unequally distributed in respect to the two systems of vessels, arterial and venous.

plectic extravasations or exhalations of blood are most frequently observed to be situated.

Our author appears to offer some plausible reasons, why the vascular derangements under consideration should happen more frequently in the corpora striata and thalami, than elsewhere, in consequence of the greater distribution of blood, apparently, to those, than to most other parts of the brain. We should be disposed to attribute this liability, however, in part, at least, to the structure of the brain in those parts, having probably less power of resistance in proportion to the blood-vessels, than other portions of the same organ. But, whatever be the cause, the fact is certain, and ought to be borne in mind when we are proceeding to examine the brain of an apoplectic or paralytic subject. M. Lallemand concludes this letter with arguments and facts to prove, that this "softening of the brain" is the effect of inflammation arrested, perhaps, in its course by death, *before* purulent suppuration has had time to take place. The following resumé it may not be improper to insert here.

"Sudden cerebral fluxion, congestion, or distention of vessels, is accompanied by vertigo, numbness, dazzlings of the eyes, tinnitus aurium, optical spectra, &c. &c. If this congestion be in a yet higher degree, and the vessels still resist, we have, what may be termed, a 'coup de sang,' (blood-stroke,) with general paralysis, because the vascular turgescence is general; ending in sudden death, or a rapid dispersion of the symptoms. If, in the intervals of these accessions, the vessels remain more or less gorged, we then have a state of habitual somnolency, stupor, and diminution of the intellectual faculties. If the patient be subject to a periodical sanguineous discharge, and this discharge be suppressed, the cerebral congestion generally occurs at the time the said discharge used to happen. The consequences of these repeated fluxionary movements are, habitual dilatation of the vessels and weakness of their coats. If this congestion be in a still greater degree, and concentrated towards a particular point of the brain, where the vessels can offer less resistance, we have hæmorrhage, extravasation of blood more or less considerable, disorganization and sudden compression of the brain, with instant paralysis or apoplexy. If the congestion be less rapid, we have *infiltration*, a kind of combination of blood with the cerebral substance—extravasation of some drops of the same fluid, chronic congestion, softening and disorganization of the brain—a state intermediate between apoplexy and inflammation, and accompanied by slow paralysis and various nervous affections. If the congestion be still more chronic, we have sanguineous injection, symptoms of irritation, convulsions, pain, spasms, &c. with, subsequently, alteration in the substance of the brain, accompanied by numbness, paralysis, first of the upper, and afterward of the lower, extremities, terminating ultimately in complete cerebral disorganization, with loss of power and flaccidity of the limbs, as in apoplexy.

"A first and sudden congestion leads generally to a sanguineous extravasation, with apoplexy and paralysis. After a longer or shorter interval, there are new congestions—the presence of a foreign body augments the irritation—inflammation of the parietes of the sanguineous depôt—consecutive softening of the brain in the neighbourhood. If the clot of blood be not considerable enough to annihilate the functions of that half of the brain where it is situated, we have partial contractions, pain, and convulsive movements of the paralyzed muscles. If the clot be larger, and consequently the compression on the whole of that hemisphere more complete, we have no motions of the paralyzed muscles—the most common case in apoplexies. From this, it will be easy to conceive how an inflammation of the arachnoid membrane, accompanied necessarily with cerebral congestion, may lead to softening of the brain or apoplexy, and *vice versa*, how these latter may determine arachnitis, acute or chronic:—*ubi stimulus ibi fluxus*." 100.

The second letter or volume of M. Lallemand's work, is on "softening of the brain, with *purulent* infiltration, or incipient suppuration," basing his doctrines, as usual, on authentic facts that occurred in the public hospitals.

Case 10. On the 1st of April, 1816, a man, 76 years of age, of full habit, was carried to the HOTEL DIEU, having been found the preceding evening, in a state of insensibility. Examined at the evening visit, he was observed lying on his back, the left side of the body devoid of feeling and motion, but stiff, and semi-bent. The man often put his right hand to his nose, as if to take snuff—the mouth was half open—tongue dry and black—eyes closed—respiration nearly natural—pulse rather full, but not quick—the intellectual faculties not entirely abolished. Purgative lavements. *3d April.* Very little change, which was also the case on the 5th. On the 6th, died.

Dissection. Strong adhesions of the skull and dura mater—the dura mater on the right hemisphere adherent to the arachnoid, which, on that side, was also somewhat thickened. A considerable portion of the middle and posterior lobes of the brain was softened, so as to resemble thick pus in every respect. In the inferior portion of the middle lobe a small quantity of blood was found infiltrated rather than extravasated, giving the brain, in this place, a brownish appearance; the vessels of this part being much dilated, and gorged with blood. The anterior lobe of this hemisphere, and the rest of the brain generally was in a firm and healthy state.*

* It is worthy of remark, that two days before the patient's death, the cold effusion was used, and had great effect in rousing the cerebral functions, and

not being particularly interesting ; but proceed with facts.

Case 11. " In the month of November 1813, a man, 36 years of age, was carried to the Hotel Dieu, entirely senseless, and without any history of the case. The upper and lower extremities of both sides were so strongly bent, and violently convulsed, that it was impossible for the by-standers to stretch them out, without using great force. The mouth was half open, the tongue moist, the lips covered with foam, the eyes open and turned upwards, the pupils insensible to light, pulse hard, and so frequent as to be with difficulty counted—whole surface of the body covered with a viscid sweat. M. Lallemand thought, at first, that it was a paroxysm of epilepsy ; but having returned several times to the ward, and finding no change at the end of five or six hours, he came to the opinion that it was a case of pernicious or putrid fever, and that the patient would not outlive the night. Sinapisms were, however, applied to the feet, and some antispasmodic medicine was got down his throat. Next day, same symptoms, except that the pulse was weaker. Purgative lavements—more sinapisms. On the third day the convulsive movements had nearly disappeared, being succeeded by subsultus tendinum—the sweats disappeared also—sensitivity less obtuse—patient essays to speak a few words. Nevertheless the pulse is weak and quick ; the hands, feet, fore-arms, and legs cold ; the tongue dry. 4th day. All the nervous symptoms have disappeared ; the face slightly yellow ; the mouth drier ; the extremities still cold—slight stiffness in the members of the left side. 5th day. The skin of the whole body yellow—urine high-coloured and sedimentous ; pulse scarcely perceptible. 6th day. Tongue less dry—speech more free—more voluntary motion—patient thinks himself better. 7th day. Patient is cheerful—jaundice diminishing—but the members of the *left* side are paralytic, and at the same time rigid—head always reclining towards the left shoulder—the face a little drawn towards the right side by the contraction of the muscles of the left side. 8th day. In the same state. 9th day. The patient appears much better ; is able to walk. When they were going to dress his blisters, he suddenly dropped down, and expired.

" *Dissection.* Much serous fluid between the arachnoid and pia mater on both sides of the head ; but more in the right than in the left side. The whole of the cortical substance of the right middle lobe was *softened*. On slicing this lobe, several depôts containing a white and liquid pus were found. The same was observed in the corpus striatum of that side. The cortical substance of the convolutions, and that of the corpus striatum were as white as the centrum ovale. The arachnoid lining the two lateral ventricles, was thickened and granulated on its surface—the ventricles themselves filled

meliorating, for a time, the symptoms which at length overpowered the patient.

with a lactescent serum: in the chest, air was sound. In the abdomen, stomach sound—liver gorged with blood—gall-bladder filled with thick bile, resembling meconium." 122.

M. Lallemand justly observes, that nothing could be more similar to epilepsy than this case, when first carried to the hospital—the duration of the paroxysm alone distinguishing the two maladies. This epilepti-form aspect he attributes to the arachnoid affection. In the succeeding days, there was a remarkable oscillation in the tide of the circulation, between the brain and the liver—as the latter organ became gorged, and embarrassed in its function, the functions of the brain revived;—and when the determination to the liver subsided, the brain again became oppressed—*vehementior obscurat alterum*. There can be no doubt, that chronic inflammation had long been going on in the arachnoid, especially where it lines the ventricles—and that the *softening* of the brain was the result of an inflammatory process, there can be as little doubt. The sudden and unlooked-for death, when the patient seemed out of danger is an occurrence, M. Lallemand observes, which very often takes place in suppuration of the brain.

Case 12. Joseph Lefebvre, 56 years of age, of middle stature and moderately embonpoint, became suddenly deprived of sense, on the 11th July 1818, and on coming to himself again, was unable to speak, the *right* side being paralytic. A physician prescribed an emetic, leeches to the anus, and a blister to the neck. These means producing no advantage, the patient was transported to the HOTEL DIEU, on the 14th July, the third day of his illness. On being received, this man was perfectly collected in his intellects, and the whole surface of the body sensible to the touch. The *right* side was motionless—the lips drawn to the left—the face tumid—the pulse, full, hard, and frequent—respiration and other functions but little disturbed. 15th. The same state. Bled to *twelve ounces*, which was repeated in the evening. 16th. Slight melioration—the patient pronounced a few words; but the pulse was very irregular. Ten leeches to the neck—sinapisms to the legs. 17th. Pulse less irregular—other symptoms the same. Eight ounces of blood from the foot. 18th. *Has had no motion in his bowels since he entered the hospital*. Bladder gorged with urine—evacuated by the catheter. Eighteen leeches to the neck—sinapisms to the feet. In the evening, prostration of strength—loss of sensibility and muscular power in the right eye—respiration easy—pulse full, strong, and frequent. Twelve leeches to the neck. Died in the night, between the 19th and 20th July, eight days from the commencement of the attack.

Dissection. The meninges and substance of the brain were slightly injected. The two hemispheres were examined with the greatest care, and presented no lesion. The cerebellum externally appeared sound: but, internally, the medullary matter of the *left* hemisphere

or lobe, was *softened* and reduced to a *bouillie*. No lesion in the chest or abdomen." 135.

It is worthy of remark, in the above case, that the intellect was unimpaired till the last moment—a rare circumstance where the inflammation or other lesion is situated in the *cerebrum*. On the other hand the functions of the heart were greatly disturbed in this cerebellic affection, and the paralysis, as is usual in *cerebral* cases, was on the opposite side of the body. The urinary bladder, however, was paralyzed from both sides we may suppose.

Case 13. Mary Lucas, 40 years of age, of sanguineo-nervous temperament, and remarkably corpulent, had a fall in 1814, by which her head was much injured from all accounts. After the wound had healed, this woman became subject to epileptic fits, whenever she was the least ruffled in her temper. Towards the end of January, 1815, it was observed that her intellect was impaired, and this affection increased rapidly. On the 1st February, she was conveyed to the HOTEL DIEU. Corporeally she appeared in perfect health; but, on examination, in a state of stupor and insensible. The face, which was a little flushed, was occasionally agitated by convulsive movements, as well as the eyes and the *right arm*. When the epigastrium was pressed, these convulsive movements were augmented. The respiration was laborious. *Sinapisms, blisters, purgative lavements*. Her jaws were so constricted that an emetic could not be administered. During the second and third days, the same stupor continued, and also the convulsive motions of the *right arm*, which were become more frequent and strong. Derivatives were continued; but the patient died in the night, between the 3d and 4th of February.

Dissection. "A cicatrice on the scalp over the left frontal bone. The bone beneath was perfectly sound, externally and internally. Near the centre of the anterior lobe of the *left hemisphere*, the *dura mater* was thickened, and adhered, together with the *arachnoid* and *pia mater*, to the cortical substance, which, in this place, was extremely soft, pulpy, and yellow. This alteration of structure had extended to a considerable portion of the anterior lobe. The rest of this hemisphere, and of the whole brain was perfectly sound, and exhibited a striking contrast with the diseased portion. No disease in the chest or abdomen." 146.

There can be little doubt, we imagine, that this softening of the brain was the product of inflammation. The accident, the symptoms, all indicate, that such a state had existed. It is, therefore, incumbent on practitioners, to search for, and note, these softenings of the cerebral mass; for we apprehend

that many brains have been opened, and reported to exhibit no trace of inflammation, because those effects of inflammation which we are more usually accustomed to, were not obvious. It is only by accurately ascertaining and detecting morbid appearances, and connecting them with the living phenomena, that we can expect to make advances in diagnosis, and, consequently, in therapeutics. We solicit the patient and zealous attention of our countrymen to these points. They may *seem* remote from the objects of immediate practice—but they are not so in reality. The man who studies living phenomena the most closely, and dissects the dead body with greatest minuteness, will be the best practitioner at the bed-side, whether in physic or surgery.

The following case presents several interesting pathological traits.

Case 14. "Mary B. 23 years of age, unmarried, entered the HOTEL DIEU on the 2d of June, 1814, for a supposed dropsy, having, according to her own account, been tapped for the same, three months previously. The countenance of this young woman was pallid—the ankles a little œdematous—the abdomen too large, but soft, and rather painful on pressure—the skin of the abdomen wrinkled, and of a yellow colour. These last circumstances excited M. Lallemand's attention, and, after much cross-questioning, the young woman confessed that she had been delivered of a child, instead of being tapped for a dropsy, at the HOSPICE DE PERFECTIONNEMENT, three months before. The yellow colour of the skin was owing to the repeated applications of cloths wetted with laudanum, to the abdomen, to mitigate pain, which she had felt there for two months past, to which was added a diarrhoea. During the last seven or eight days, there were evening rigors followed by fever—the pulse was small and frequent—the tongue foul—the nervous system rather irritable. *Fomentations, emollient lavements, diluents.* No impression being made on the complaint by these means, an emetic was prescribed. In an hour after taking this, there were great efforts to vomit, but nothing except mucus thrown up. In another hour, convulsions took place, with some foaming at the mouth. Our author was summoned, and found the patient insensible, lying on her back, and the *right* half of the body completely paralytic, the mouth being drawn to the left side. When M. Lallemand went to feel the pulse, he perceived the muscles of the paralyzed arm to be twitched convulsively, and soon after, convulsive movements extended over the whole body. In a few minutes, however, these gave place to complete paralysis again. *Ten leeches to the neck—sinapisms to the feet.* In the evening a similar convulsive accession returned. The succeeding day the respiration was difficult—the prostration of strength great; but the convulsions returned no more. On the day after, or 54 hours from the commencement of the cerebral symptoms, death closed the scene.

“ *Dissection.* The arachnoid covering the surface of the brain was opaque and thickened—considerable serous effusion between the arachnoid and pia mater. These membranes adhered to the superior and outer part of the *left* middle lobe of the brain, and on being raised, they drew up a portion of cortical substance the size of a nut, which was of a whitish yellow colour, and of little more consistence than that of thick pus. The parietes of the little cavity formed by the detachment of this softened portion of brain, presented the same appearance; but a little farther on, the cerebral substance was perfectly sound. The ventricles contained four or five spoonfuls of limpid serum. *Chest.*—The pleuræ on both sides were thickened, white, and the cavities containing a considerable quantity of turbid serosity. *Abdomen.*—The peritoneum on the small intestines was covered with fine white tuberculated granulations, and the pelvis was filled with a sero-purulent fluid, intermixed with flocculent matters. The mucous membrane of the stomach exhibited a uniform rosy tint—that of the small intestines presented several salient patches, and, near the ileo-cæcal valve, a number of small ulcerations.” 154.

It is evident, that this young woman, during or subsequent to her confinement, had contracted a peritoneal inflammation, which became chronic, producing the granulations and sero-purulent effusions observable after death. The diarrhœa was accounted for by the state of the mucous membrane of the small intestines. But it was not the serous membrane in the abdomen alone, that suffered. The same tissues in the chest and in the head, partook of the inflammation: and nothing is more common, especially after parturition, than for a series of the same structures, in different parts of the body, to take on a similar disease. Although there can be no doubt, that disorder was going on in the head, before the administration of the emetic, yet there can be as little doubt, that this injudicious measure hastened the fatal catastrophe, by accelerating the cerebral symptoms—of which M. Lallemand appears in some measure aware, though he endeavours to obviate the conclusion which one would naturally draw on this occasion.* The following case bears some analogy to the preceding.

Case 15. “ Mary D. unmarried, 28 years of age, was confined in October, 1819, and did not menstruate afterward. (The unmarried women in France, after confinement, almost invariably give out their children to nurse, or send them to asylums.) In the beginning of January, 1820, she became affected with severe headachs; and one month afterward, having been exposed to wet and cold, when

* “ Faut-il attribuer le prompt developpement de cette affection à la seule congestion produite par les efforts de vomissement? Il est difficile de concevoir qu'un embarras momentané de la circulation ait pu produire une inflammation, &c. &c.” 157.

much heated, the cephalalgia increased—the patient fell into a state of hebetude, and five days afterward became insensible. Conducted to the HOTEL DIEU on the 23d of February, fifteen days from the increase of the headach, she lay in a state of supination and sopor, her face pale and sunken, scarcely sensible when spoken to—puts out her tongue when ordered—abdomen sensible to pressure—screaming and grinding of the teeth during the night. *Sixteenth day.* Rigidity of the members—pulse small—other symptoms the same. *Twelve leeches to the temples and behind the ears—affusions of cold water, during which some degree of reaction was manifested—sinapisms.* From the 17th till the 25th of February, there was no material change from the state above described. On the latter day the patient died.

Dissection. The arachnoid covering the whole surface of the brain, was found opaque and thickened, especially at the base of the brain about the optic nerves and tuber annulare. Some lactescent serosity effused into the net-work of the pia mater. Ventricles contained two ounces of similar liquid. The arachnoid lining the ventricles was covered with evident villousities—the tuber annulare softened and diffuent equally throughout its extent, and of a yellow colour—no sanguineous extravasation. The pleura costalis and pulmonalis on both sides adherent—the lamina of pericardium reflected over the heart, presented two thickened and opaque streaks. *Abdomen.* The peritoneal surface throughout, studded with tuberculous granulations in a state of suppuration.” 160.

Here, as in the former case, a chronic inflammation of the serous membranes is lighted up by imprudences after confinement. The inflammation of the arachnoid membrane, however, appears to have masked, as it were the other phlogoses, from its intensity. To it must be attributed the original and obstinate cephalalgia, the subsequent stupor, loss of sensibility, delirium, grinding of the teeth, &c.—the latter symptoms being, indeed, those also of hydrocephalus which in fact, was present in this case.*

At page 222, *et seq.* our author makes some interesting remarks on the etiology of the class of diseases under consideration. In a few cases, aneurism of the heart very evidently proved an exciting cause of the cerebral affection. Four of the patients were manifestly of the apoplectic form and constitution—and in all these, the invasion of the disease was sudden and severe as in apoplexy. In a considerable number of instances, the patients had previously experienced a

* In this analysis we confine ourselves to those cases which happened under our author's own inspection, and particularly in the public hospitals, for obvious reasons. M. Lallemand quotes several cases from our able countryman, Dr. Abercrombie, and often makes honourable mention of that distinguished cultivator of Pathology.—*Ed.*

suppression of some sanguineous evacuation that had become habitual, as hæmorrhoids, epistaxis, &c. The impression of sombre affections of the mind had great influence in developing the disease. Many of the victims had been greatly addicted to the immoderate use, or rather abuse, of vinous and other fermented liquors. All these causes, predisposing and exciting, we need hardly say, are those which lead to apoplexy and inflammation in general—a strong proof that these “softenings of the brain” are the result of an inflammatory process. Let us glance at the influence which this cerebral affection exercises on the other functions of the body.

The *respiration* is remarkably exempt from the influence of the cerebral disorder. In general this function was calm and regular till within a day or so of the fatal termination, when it became embarrassed, and at length stertorous. This fact may lead us to consider difficult respiration as one of the most fatal symptoms in diseases of the brain.

Nearly the same observations apply to the circulation as to the respiration. The action of the heart is not much under the *direct* influence of the brain; but it is liable to be *secondarily* affected in a considerable degree. Wherever there was trouble of the circulation, it was a symptom of some complication of other disease with that of the brain, as fever, phlogosis in the chest or abdomen, or in the membranes of the brain.

It was before observed, that diseases of the brain appeared to mask diseases of other parts of the body. M. Lallemand does not think, that these other coexistent diseases are checked in their progress, or lessened in their force, by the cerebral affection; but, that the latter renders the symptoms of those other diseases less perceptible to the patient, and consequently less complained of. It is thus that we so frequently see patients allow great accumulations of urine to take place, without making any efforts to void it, in cerebral affections; and even the mucous membrane of the bladder to be considerably inflamed, without their exhibiting any symptom of such occurrence. It is remarkable, also, that this retention of urine, in cerebral affections, augments greatly the original malady; and, therefore, the region of the bladder should always be carefully examined, in this class of complaints, and no accumulations suffered to take place. It is very unfortunate, as M. Lallemand justly observes, that the precursory symptoms of “softening of the brain,” like the prodrome of diseases in general, are too often obscure—and that when the symptoms are unequivocal, the disease is too often fatal. This consideration should rather stimulate than paralyze our researches. We are far from being possessed of all the knowledge that

may be acquired in our art; and, till that is accomplished, we have no right to cease from our labours.

In a considerable proportion of cases, there was a remarkable alteration in the intellectual functions preceding the invasion of the disease—some becoming impatient, irascible, morose—others melancholy—some exhibiting too high an exaltation of the animal spirits—some experiencing unfounded apprehensions, or spectral illusions, &c. The greater number of patients were previously affected with pains in the head, sometimes of a wandering kind, sometimes fixed, shooting and accompanied by convulsions, morbid sensibility of the retina, pains in the limbs, vertigo, somnolency, stupor, &c. In these latter instances, there was generally found chronic arachnitis in combination with the softening of the brain. In short, the *precursory* symptoms of this disease, are those which evince a determination of blood to the vessels of the brain, and a morbid exaltation of the excitability of that organ. These symptoms are those, of course, which indicate a disposition to apoplexy or arachnitis; but no harm can result from confounding these three diseases together, in their approach, as the precautionary treatment will be the same. Of all precursory symptoms, the cephalalgia is the most constant; but it diminishes, and at length entirely disappears, as the brain becomes disorganized and incapable of sensation. It was observed, that the intellectual functions became weakened, *pari passu*, and in proportion as paralysis affected the extremities.

“ Chez presque tous les malades dont je vous ai rapporté les observations, lorsque les membres étaient complètement paralysés, les fonctions intellectuelles étaient comme engourdies; les réponses lentes, tardives, embarrassées, souvent contradictoires; la mémoire était chancelante ou entièrement abolie; la figure avait perdu toute expression, et portait l’empreinte de la stupeur.” 247.

The symptom most remarkably characteristic of softening of the brain, was a contraction of the flexor muscles of the limbs. Sometimes this amounted only to a simple rigidity of the members; at others, it was carried so far that the patient’s fist was kept rigidly applied to the shoulder, and the heel to the buttock. When an attempt was made to stretch these members, there was a resistance which it was found impossible to overcome without offering a violence inconsistent with prudence. The muscles of the face partake of this spasmodic state, and, contrary to what takes place in apoplexy, the mouth is drawn towards the paralyzed side. But we cannot follow M. Lallemand through all his minute symptomatology. We shall proceed to state the particulars of a

few cases, where there were strong marks of the disease in question, but where the patients were happily saved.

Case 16. “Megnhyel, of strong constitution, much addicted to drink, had, more than once, shown symptoms of mental alienation and occasionally, for some days at a time, he experienced a numbness of the upper and lower extremities of the *right* side. On the 18th October he committed, as usual, a debauch in drink, and during the night felt pains throughout all the body, attended with shiverings. He got up several times in the night to drink cold water. In the morning he was found insensible; and at four in the afternoon presented the following phenomena to M. Lallemand: viz. coma profound—mouth very much drawn towards the *left* side—abolition of intellect—diminution of sensation, particularly in the *right* side—spasmodic contraction of the muscles, especially of the *right* side—trismus—pulse full, hard, and frequent—breathing natural. *Bled from a large orifice to the extent of 20 ounces at least—26 leeches to the left side of the neck—sinapisms. In a few hours afterwards 24 leeches in addition were applied—ice to the head.** Next day little or no change. Twenty-four leeches—continue the ice and sinapisms. The application of the ice seemed to restore sensibility. In the evening the breathing was embarrassed. In addition to ice to the head, blisters are to be applied to the insides of the legs. *Third day.* Return of sensibility, sight, and intellectual functions—rigidity of the members continues—some voluntary motion returns. From this time he rapidly convalesced, and soon recovered.”

Case 17. “In the beginning of January, 1814, there was carried to the HOTEL DIEU, a man about 24 years of age, of strong constitution, who had complained, the evening before, of violent pain in the head, for which hot mulled wine had been given him. He had a very restless night, and next morning was found in a senseless state. He was conveyed to the hospital, and the following symptoms were noted:—All the limbs rigidly flexed, with occasionally convulsive agitations—some signs of sensibility when the *left* side was pinched—none when the *right*—mouth drawn to the *right* side—eye-lids shut—eyes turned upwards and divergent—pupils contracted—intellectual functions apparently abolished—pulse slow and soft—face slightly flushed. The physician in attendance was uncertain whether the symptoms indicated cephalitis or a “pernicious fever,” and therefore, by way of steering a middle course ordered twelve leeches to the neck, and if these produced no good effect, to bleed from the arm in the course of the day—if not to administer tonics and powerful antispasmodics. The leeching produced no effect, *pro or con.*; and M. Lallemand (who appeared to have been the physician’s assistant) found the patient, at two o’clock, in the state above described. From the dissection of fo-

* This was bold practice for a French physician; and the safety of the patient was probably owing to this comparatively bold step.—*Ed.*

mer patients with similar symptoms, and there finding cerebral inflammation and even suppuration, our author judiciously took it on his own responsibility to open a vein, notwithstanding the pulse was weak and slow, and no good had resulted from the leeching. He therefore made a large opening in the brachial vein, and rapidly abstracted between twenty and thirty ounces of blood. This prompt and copious evacuation produced a remarkable change. The patient opened his eyes—voluntarily extended his *left* arm, and held forth his hand when ordered by M. Lallemand; but could not speak. The *right* arm was less rigid, but still bent—the pupils less contracted. In the course of an hour M. Lallemand returned, and found the patient had fallen back into his former condition of stupor. He therefore determined on re-opening the vein, and drawing off sixteen ounces of blood. This bleeding produced the same striking effects as the former, but in a greater degree. Nevertheless, about nine o'clock in the evening, the original symptoms had nearly all returned; and the pulse had risen in strength. Twelve leeches were applied to the neck, and cloths wetted with cold water were kept constantly applied to the head. Towards eleven o'clock that night, M. L. found the patient asleep, and talking to himself distinctly. The right arm was still stiff; but, when pinched, the patient awoke, and turned himself about. *Sinapisms to the legs.* Next morning the patient was found sitting up, demanding the reason of his being in the hospital, and soliciting something to eat. In the course of the day, he walked about the ward, and from this time rapidly recovered.”* 295.

* We have seen several cases which induce us to believe, that *venous congestion* of the meninges of the brain has a very striking effect in producing *softening* of that organ, as well as sudden death. We shall only state one instance here, but it is a very remarkable one. On Monday, the 19th of September last, we assisted Messrs. Bagster and Pretty, very intelligent surgeons of Mabledon-Place, in examining a fine child, three years of age, who died the evening before in a very sudden manner. On Saturday, the day before his death he appeared in perfect health. On Sunday he had a smart attack of bowel complaint, and the mother sent for Mr. Pretty about 4 o'clock. The child had then such a peculiar look about the eyes and face, and such an apparent fulness about the head, that he expressed to the mother an apprehension that the child would have a fit. Some leeches were ordered to the head, and Mr. P. intended to return in the evening. A little after seven o'clock, however, the boy was seized with strong convulsions, and died at eight o'clock.

We minutely examined him next day. In the course of our lives, we never saw such a state of *venous congestion*. The whole of the veins of the pia mater appeared as if forcibly injected with a strong solution of indigo, and the sinuses were gorged as if ready to burst. The arterial system was almost undistinguishable—what arteries were visible being quite empty. There was no effusion any where; but the brain was so soft though the body was only a few hours dead, that it would scarcely bear dissection. The network of vessels on the tuber annulare, completely excluded from view, the white substance of that part, till it was with difficulty stripped off. The vessels of the plexus choroides were nearly ready to burst. On slicing the brain, black, but few or no red points appeared.—*Rev.*

of our author, as we find our limits will not permit us to extend our analysis much farther.

Case 18. " M. Remy, 60 years of age, had been long affected with gout in the feet, which were quite deformed by its ravages. In working at some theatrical decorations in the beginning of September, 1818, he fell into the orchestra, which, for an instant deprived him of sense, but he soon became collected, and only complained of a slight pain in his side, which went off in a few days. He took to his work, and the accident was forgotten. In a fortnight afterward, however, it was remarked that Remy was confused in his ideas—that his memory was affected—that he was drowsy—and that his speech was embarrassed. Five or six leeches were applied to the neck. The patient was obliged to take to his bed—the right arm became paralytic, and, from time to time, agitated by convulsive movements—the left hand was frequently applied to his head, or employed in flocitation. The friends of the patient having omitted to mention the fall to the physician in attendance, the patient was treated as having an idiopathic fever, till the 9th or 10th day, when M. Lallemand happened to see him for the first time, and, on inquiry, learnt the true history of the case. At this time the patient fell into so long and profound a syncope, that he was supposed to be dead by many of the by-standers. On recruiting, the right arm and fingers were bent so rigidly as not to be overcome; yet the member and that side were insensible to the touch—the eye-lids were closed—the eyes reversed, divergent, and insensible to the light—hearing, and the intellectual functions in general, quite suspended—whole body covered with a cold and viscid perspiration—breathing difficult, quick, and stertorous—pulse imperceptible at the wrist, and scarcely to be felt in the carotids. In this desperate state the man appeared to have but a short time to live. The blisters and sinapisms had produced but little effect on the skin, and were unlikely to rekindle the dying spark. M. Lallemand, therefore, proposed to the physicians present to pour boiling water on the calves of the legs and thighs, while ice should be applied to the head. This proposal was adopted, but with great reluctance on the part of the physicians, as it was considered cruel to disturb the last moments of a man now moribund. The instant the boiling water touched the skin the patient made sudden movements throughout the whole body—the *left* arm became agitated—the eye-lids opened—the pulse became perceptible at the wrist. In half an hour afterward the water was applied to the thighs, and the effect was still more remarkable. The face assumed some colour—the pulse rose in force and frequency. The ice was now applied to the head for two hours. The patient seemed to revive, and raising his hand to his head, seemed to attempt removal of the ice. It was taken away whenever the skin of the forehead became cold, and re-applied as soon as it again became hot. In the evening there was considerable reaction, as evinced by the resistance of the

pulse and the flushing of the face. Ten leeches were therefore ordered to the neck, and the ice directed to be continued to the head through the night. Next morning things wore a more favourable aspect; but the evening brought an exacerbation of the symptoms. Six leeches to the neck, and ice to the head through the night. On the third day there was some sensibility in the skin of the right arm. Ice to the head in the evening. M. Lallemand, being now obliged to be absent for eight days, was surprised, on his return, to find the patient sitting up and eating. He recovered. The eschars produced by the boiling water were very deep, suppurated profusely, and continued open for fifty days. To this powerful counter-irritation and drain our author attributes the complete recovery of the patient from a state that, at one time, was almost beyond hope." P. 300.

After the symptoms and dissections which have been detailed, there is every reason to believe that the case now related would, had it not been for the judicious measures pursued, have exhibited, on dissection, similar appearances to those so often pourtrayed in the course of this article. We are justified, therefore, in concluding, that the disease under consideration, especially in its earlier stages, is not beyond the resources of our art.

We now proceed to the third letter or volume of M. Lallemand's work, in which the subject of unequivocal suppuration, or *encysted abscess* of the brain is taken up, and illustrated by numerous cases. These cases are, many of them at least, very interesting to the practical physician and surgeon, their value and importance being quite independent of any doctrine for the support of which they may be brought forward. On this account we shall abridge as many of them as our limits will allow.

Case 19. (From Ducrot's Essay on Cephalitis, 1812.) "M. A. about 60 years of age, had a portion of the *left* frontal bone depressed by a violent blow of a stone, by which blood was lost, but which did not deprive him of the power of returning to his house. On the following day he had pulsative cephalalgia, some affection of the memory, inability to move the tongue freely, feeble pulse, depression of energy. Yet his answers were correct. *An emetic.* Third day, deglutition difficult, thirst, heat of skin, frequency of pulse. Fourth day, drowsiness, but still answers coherently. A blister to the nape of the neck. Fifth day—soporose—loss of speech, but appeared to understand what was said—involuntary discharge of urine. Sixth day, sopor still more profound—other symptoms the same. Seventh day, same state. Eighth day, delirium, insensibility, convulsive movements in his limbs and body, with distortion of the mouth and eyes, renewed every quarter of an hour. In the intervals the breathing was difficult and stertorous, with fixed eyes

the sopor diminished, and sensibility returned—but the memory and judgment were affected—incipient paralysis of the *left* arm and leg. Tenth day, complete paralysis of the said members, with slight rigidity and pain when they were moved by the by-standers—aspect idiotic—answers vague—optical illusions—a convulsion during the night. Eleventh day, entire loss of sense, and of voice—general immobility—coma—breathing high and difficult—died in the evening.

“ *Dissection.* Two inches in extent of the frontal bone was depressed about two lines below its proper level. The arachnoid covering the whole convexity of the brain was thickened, whitish, and lined, on its inner surface, by a layer of albuminous matter. At the basis of the *right* middle lobe of the brain there was a portion of cerebral substance reddened and evidently inflamed.” 327.

Ducrot, who relates this case, very clearly shows the connexion of the symptoms with the *post mortem* appearances, but seems not to entertain the least doubt about the propriety of the practice adopted—namely, the Hippocratic treatment of inflammation of the brain and its coverings by—what?—a careful record of its progress, without insulting the omnipotence of Nature by interfering with her ways and means; a precious practice truly! Here M. Lallemand extracts several cases from MORGAGNI of abscess in the brain, and softening of its substance; but these we shall pass over, as Morgagni’s work will soon be in an English dress, that will render it of easy access to the profession at large. The following case, which occurred at the Hotel Dieu, illustrates the effects of the pathemata on the cerebral functions and structure.

Case 20. “ Juctant, a man about 55 years of age, of small stature, but plethoric constitution, having lost a sum of money constituting his whole property, fell into a state of melancholy, which was succeeded by severe headaches, profuse perspirations, and fever, accompanied with evening exacerbations. In about a fortnight after this, it was noticed that he was delirious—that he talked incessantly, and always of his pecuniary losses. In five days more, the *left* arm was observed to be paralytic—and this paralysis had continued three days, when he entered the Hotel Dieu, on the 13th January, 1821. His face was then red; the pulse strong, but not frequent; the *right* arm agitated by convulsive movements—the members of the *left* side devoid of sensation and motion, the fore arm being bent on the arm;—constant muttering to himself. *Venesection—lavement—diluent.* Next day, same state. Venesection repeated more copiously. Fourth day from entrance into hospital, great depression—mouth drawn to the *right* side—insensible—cannot speak. *Sinapisms, purgative lavements.* Sixth day, pupils dilated—stertorous respiration—died at nine o’clock.

Dissection. Difficulty in separating the cranium from the dura mater, and much blood effused from the torn vessels. Arachnoid and pia mater exceedingly injected. In the middle of the *right* hemisphere a purulent depôt was discovered, containing about two spoonfuls of a yellowish green pus—parietes of the depôt converted into a rotten and soft substance, forming a contrast with the rest of the hemisphere—ventricles contained a small quantity of serosity—no other alteration in the brain or other organ.” 356.

We have seen cerebral inflammation follow blows on the head at such long intervals that we think practitioners cannot be too much on their guard in such cases. They should watch patients for some months after accidents of this kind. The following case will serve to illustrate the force of the caution.

Case 21. “Riom, 17 years of age, had the *right* parietal bone grazed by a musket-shot at the battle of Brienne. He was rendered insensible for a short time, but was dressed in haste and sent on to Paris. He arrived at the Hospital of Invalids on the eighth day of the accident. The wound was nearly cicatrized, but the man was tormented by an acute headach, lancinating pains in the cicatrix, and constant drowsiness. The integuments being incised, the trephine was applied, and several fragments of bone and of ball were extracted. He was instantly relieved—the wound soon closed—and in three weeks from the operation the patient was discharged from the hospital. In a fortnight after this the headach returned, with rigours and fever. *Pediluvia* and *low diet*. During the next eight days there was almost constant somnolency, with a sense of formication and numbness of the upper and lower extremities of the *left* side; embarrassment of speech; slight constriction of the jaws. The patient entered the HOTEL DIEU on the 5th of July, 1813. He could then scarcely hold any thing in his left hand; and was hardly able to walk in consequence of the weakness of the left leg—pulse slow and full. *Venesection, purgative lavement, mustard pediluvia*. 6th. Complete paralysis of the left side—cicatrix inflamed, tense, and painful, with a pasty feel of the scalp. The integuments were again laid open, the bone exposed; and the trephine again applied. The dura mater was very red, covered with fleshy granulations, and extremely sensible to the slightest touch. It was divided by a crucial incision, and the spinal artery bled profusely. No pus was found under the dura mater. *M. Dupuytren* suspecting a more deeply seated abscess, plunged his bistoury about an inch into the substance of the brain, and some pus was observed on the blade of the instrument. The bistoury was then plunged a little farther in, and a table-spoonful of grayish and somewhat fetid pus followed. The patient was instantly deprived of speech, and convulsive motions took place in the non-paralyzed side. The dressings, in a few minutes, were filled with blood. An instrument was introduced to compress the spinal artery. The convulsions were increased, the pupils be-

came dilated, the tunica conjunctivæ of the eyes greatly injected, the eye-lids became ecchymosed, the same extending to the temples. In the evening the convulsions became less violent; but the pulse was more irregular and embarrassed. Bled from the feet—purgative lavement. At midnight the convulsions ceased, but the man died at one in the morning.

“*Dissection.* A fissure was discovered in the parietal and temporal bones extending to the base of the skull. The dura mater was very red throughout the whole surface of the *right* hemisphere—the arachnoid was equally red, but to a limited extent around the wound. Both membranes on the *left* side were much less injected than on the *right*. Around the incision made into the brain by the bistoury, the cerebral substance was softened to the consistence of bouillie, apparently rotten, and exhaling a fetid odour. On this side of the brain no distinction could be observed between the cortical and medullary substance. The focus of the abscess was seated close to the right ventricle, and the cerebral substance surrounding it was in the soft and putrid state above described, which gradually lost itself in the surrounding sound parts. Another and smaller abscess was situated below the former, and exhibited the same appearances.” 361.

The above case is remarkable, not only for the phenomena, and appearances on dissection, but for the boldness of Dupuytren in plunging his knife an inch into the brain in search of an abscess. It was fortunate for his reputation that an abscess *did* exist, and that he *did* happen to strike it! His example, we apprehend, will not often be followed. Our author has seen this puncture of the brain performed five or six times, under the most favourable circumstances, but in all of them without success. “Il ne faut donc pas se faire illusion sur le succès qu’on serait en droit d’en attendre, d’après l’assurance avec laquelle en parlent les auteurs. Quand on a rencontré l’abcès, on se félicite, on croit le malade sauvé; mais on ne tarde pas à voir les symptômes reprendre une nouvelle intensité, et l’on finit par avoir la douleur de le perdre.”

From Ducrot’s Essay on Cephalitis we shall abridge another case resulting from external violence:

Case 22. “Louis Motel, 48 years of age, hurt his head against the mantelpiece of a chimney, without experiencing any thing at the time except a slight sense of stunning. In fifteen days afterward he felt a degree of weakness in the *right* arm, which gradually increased. The same took place in the lower extremity of the *same* side. Soon after this the intellectual functions were disturbed—pulse feeble and concentrated. On the eighth day (from the commencement of the symptoms, and three weeks from the accident) there was complete paralysis of the right side, accompanied with

rigidity and pain. On the fifteenth day some somnolency, change of features, thirst, heat of skin, frequency of pulse. Eighteenth day, loss of sense, involuntary discharges of urine and fæces. Twentieth day, the patient died.

“*Dissection.* In nearly the centre of the middle lobe of the *left* hemisphere a purulent depôt was found, four lines in diameter; the parietes of which were of a dark red colour to two lines in depth. Nothing wrong in any other part of the brain.” 387.

We shall analyze but one more case, and then close this article. It is detailed by M. Vaidy, an observant and accurate pathologist.

Case 23. “A soldier, 26 years of age, was seized all at once, and without any assignable cause, with a sense of formication in the fingers of the *left* hand, and, at the expiration of 24 hours, lost completely the power of that member. On the fourth day, he complained of pain in his head, with convulsive twitchings, prickings, and formication throughout the *left* side of the body generally, followed by hemiplegia of that side. On the 13th day, motion was recovered in the left hand: and the day following, in the fore arm and shoulder, the headach diminishing. On the 20th day, the power of that side was nearly restored, and the patient could walk. On the 32d and 33d days he had violent convulsions, with return of the cephalalgia and of the hemiplegia. In the succeeding days there was drowsiness at intervals. On the 50th day the patient died in a state of tranquillity. The intellectual faculties, during the whole of this period, suffered no interruption.

“*Dissection.* On examining the brain, there was found in the middle lobe of the *right* hemisphere a purulent collection of about three ounces of homogeneous pus without smell, and of a yellowish colour. The parietes of this abscess were of a deep yellow tint, and plentifully lined with purplish granulations.” 412.

We have now presented our readers with ample specimens of the facts contained in M. Lallemand's three letters; but shall not enter into his diagnostics. It is sufficient for us, and for most of our readers, we imagine, to know *when* we have inflammation or abscess in the brain or its membranes, without attempting any very minute distinction as to the *precise* part inflamed or suppurated. The facts, we repeat it, contained in this work and in that on arachnitis, lately reviewed in this Journal, are very valuable in themselves; and when our junior brethren have doubtful cases of cerebral affections under their care, they will do well to read over the collection of cases which we have here, and in a late number, presented them. We beg M. Lallemand to accept the homage of our profound respect and esteem.

II.

1. *Cases of Neuralgia Spasmodica, commonly called Tic Douloureux, successfully treated.* By BENJAMIN HUTCHINSON, Fellow of the Royal College of Surgeons. Second Edition, illustrated with a Plate. Octavo, pp. 189. London, 1822.
2. *A History of a severe Case of Neuralgia, commonly called Tic Douloureux, occupying the Nerves of the Right Thigh, Leg, and Foot, successfully treated.* By G. D. YEATS, M.D. F.R.S. Octavo, pp. 55. London, 1822.
3. *Observations on Neuralgia.* By SHIRLEY PALMER, M.D. New Medical and Physical Journal, Nos. 43 and 53, for May, 1814, and March, 1815.

THE great number of cases of this dreadful disease which have been published of late years, prove that the complaint is on the increase, along with the host of other nervous affections. The general spread of intellectual excitement among all classes of society, in modern times, must deteriorate the grosser functions of the body—and this deterioration inevitably reacts on the nervous system with a severe retaliation. What has been termed neuralgia, or tic douloureux, arises, we are convinced, from different causes in different individuals. It may depend on an inflammatory condition of the neurilemma, as has indeed been proved, both by dissection and by the modes of treatment that were successful.* It may depend on organic diseases in the brain, where the origins of the nerves are pressed upon. Or, as is more commonly the case, it may arise from sympathetic irritation of an internal organ, or of a nervous expansion, as that of the inner surface of the stomach or intestines, at a great distance from the seat of the actual pain. It is evident, that the treatment must be modified by this variety in the etiology of the complaint, and that no one specific can ever be expected for the different species of the disease. In that variety of neuralgia originating in gastric or intestinal irritation, tonics have proved the most efficient remedies, combined with, or rather preceded by, evacuations and alteratives. Thus, in two or three of M. Vaidy's cases, (see page 749, vol. i.) cinchona arrested the paroxysms. In other cases, however, (as case 7,) where the patient was young, and the pain in the left leg, along the external cuta-

* See M. Vaidy's cases of Neuralgia, vol. i. p. 748, of this series.

neous nerve, most excruciating, thirty leeches applied in the track of the nerve removed the disease at once. In the very remarkable case of *tic douloureux* of the ankle, related at page 354 of the second volume of our *Quarterly Series*, for January, 1820, alterative aperients, and, subsequently, the oxyde of bismuth, taken for a considerable time, effected a cure, or, at least, rendered the complaint of trifling inconvenience. We think the rationale of the tonic plan, where the disease depends on morbid irritability and irritation in the intestinal canal, is not very difficult to understand,—at least, where the mind is not imbued with the modern mania of medical skepticism. We have now, indeed, a very plentiful growth of medical philosophers, whose doubts and difficulties respecting the most common phenomena, and the most obvious trains of causes and effects, must render them, at the bed-side of sickness, as perplexed as the ass between two bundles of hay! We have had a few opportunities of coming in contact with some of these *exquisites* of the profession, who are prone to “cut blocks with a razor,” or mystify every thing relating to pathology and practice; and, we must say, that their skepticism and hair-breadth discriminations led them into the most puerile, absurd, or vacillating practice, (if practice it could be called,) which we ever beheld. That great uncertainty does, and ever will prevail in medicine, must be admitted and deplored; but if the absence of *demonstrative proof* in every thing before us, leads us to a want of promptitude in acting on what is *highly probable*, then the practice of medicine will become a tissue of imbecility. We shall, indeed, become “too fond of the right to pursue the expedient,” and allow quacks and ignorant pretenders to seize the obvious indications before their eyes, while we are doubting, disputing, and addling our brains with medical logic that, after all, leads but to conclusions in which nothing is concluded. The good practitioner should observe accurately, deliberate maturely, but act decisively on the most *probable* indication before him, without hesitating, or embarrassing himself with the thousand *possibilities* of the case, that may or may not occur.

We shall now take a short review of the history and treatment of this terrible disease, availing ourselves freely of an excellent paper drawn up by our former colleague, (Dr. Palmer,) but unfortunately consigned to a journal which had no circulation, and where, consequently, it has remained unknown. We shall here rescue it from unmerited oblivion.

This obscure and distressing disease has received various appellations, but none, we think, so appropriate as *NEURALGIA*, first applied in France, and first introduced into this

country by Dr. Palmer. It is that which is now generally used by the best writers. It shows the necessity which exists, and ever will exist, for new and more appropriate designations, as we advance in knowledge. By Fothergill, who first described the disease, it was termed, "*Facies morbus nervorum excrucians*"—by Sauvages, "*tic douloureux*"—by Darwin, "*hemicrania idiopathica*." Although it more frequently affects the three grand divisions of the fifth, and facial portion of the seventh pair of nerves, yet multiplied observations have now proved, that it may assail various other nerves, cerebral, spinal, and, perhaps, ganglionic. Where it is confined to the fifth or seventh pair, *neuralgia facialis* appears a very proper designation.

The scalpel, from utter inefficacy of other local and constitutional treatment, has been often resorted to; yet, this constitutes, at best, but an unpleasant and precarious operation—at one time rendered abortive from the number or situation of the affected nerves—unavailing at another, from defect of anatomical knowledge*—and always disfiguring, more or less, the person operated on.

Where *pain* is a prominent feature in any complaint, we naturally look to the class of anodyne medicines for relief; accordingly opium has been largely exhibited in neuralgia, but with little permanently beneficial influence. In fact, by constipating the bowels, and otherwise deranging the digestive functions, it would appear to be ultimately injurious, rather than sanative. This position is well exemplified in the unfortunate fourth history of neuralgia, related by Dr. Pearson,† where tincture of opium, to the amount of 600 drops, in seven hours, scarcely procured a transient relief. In the cases related by Drs. Darwin,‡ Palmer,§ and Mr. M'Kecknie,|| opium had no salutary effect. Mercury has sometimes succeeded, but oftener failed, in this deplorable disease. In Dr. Pearson's first case, (Ed. Journal for July, 1807,) the disease eventually yielded to the mercurial influence, but not until after a singularly obstinate resistance—the recovery, after all, being slow and imperfect. In the histories recorded by Dr. Darwin and Mr. M'Kecknie, no

* If proof of this assertion were wanting, we need only refer to a case of neuralgia recorded by Dr. Darwin, in which the surgeon "*made an incision so as to divide the artery near the centre of the ear, next to the cheek, hoping to divide a branch of the affected nerve, but without success.*" What nerve could he hope to cut by an incision thus directed?

† Ed. Journal, Vol. iii. p. 276.

‡ Zoonomia, Vol. iii. p. 217.

§ New Med. and Phys. Journal, Vol. iii. p. 580.

|| Ed. Journal, Vol. vii. p. 300.

apparent good resulted from the mercury. But where a combination of mercury and opium was employed, the prospect is somewhat brighter. Dr. Pearson's second case, and those detailed by Drs. Corkindale and Palmer, present illustrations of the beneficial effects of this combination. It is curious, but it accords with our own observations, that the combination of opium and submuriate taken internally, is far preferable to mercury rubbed on the skin, and opium taken by the mouth. This was conspicuous in Dr. Pearson's and the other cases.

Arsenic. From the striking features of analogy observed to subsist between neuralgia and certain forms of chronic rheumatism—and, also, from the periodicity of its attacks, arsenic has been frequently employed, but not with much success. In Dr. Pearson's fourth case, its exhibition proved injurious; in the fifth, unavailing; in Dr. Darwin's patient, useless. In the case detailed by Mr. McKecknie, arsenic was prescribed with great and permanent benefit. It should be borne in mind, however, that mercury had been *previously* administered to the point of salivation. Mr. Hill also speaks favourably of arsenic in neuralgic affections,* but cites no case in support of the assertion.

Cinchona has been tried in several cases. Dr. Clark, of Nottingham, prescribed it largely, and it suspended the paroxysms for some months, but they eventually returned, with greater violence than ever. In Dr. Darwin's patient this remedy completely failed. Of Mr. Swan's observations on this remedy, and on tic douloureux in general, we have given an ample account in the second volume of this series, p. 63, *et seq.* to which we refer also for Dr. Kerrison's sentiments on the same remedy and disease. They both speak highly of the cinchona.

Dr. Palmer exhibited the bark with much advantage when the system had been worn down by protracted suffering, confinement, and a long course of mercury. It is under such circumstances, he thinks, the cinchona is principally indicated.

Belladonna. In the year 1818, Mr. Bailey, of Harwich, drew the attention of practitioners to the use of belladonna in neuralgic affections, and relates nearly thirty cases wherein the medicine was more or less successful. He recommends the extract and tincture of the herb, as prepared by Mr. Gorbun, and details many cases of neuralgia facialis,

* Ed. Journal, vol. vi. p. 57.

where it was more or less beneficial. Of the tincture, he exhibits from twenty to thirty minims for a dose, in any convenient vehicle, augmenting or diminishing it according to its effects, and repeating it with the frequency required by the degree of uneasiness. Of the extract, he begins with three grains, and repeats the medicine in diminished doses, until relief be procured.

Mr. Bailey considers *tic douloureux* as a *local* disease, having "its origin in the diseased state of the membranes, lining the cavities of the molar teeth." Some others of the profession have reported favourably of this medicine; but, we fear, that it has either not been sufficiently tried, or not been found to answer the expectations of Mr. Bailey.

Among the internal remedies which have been employed against this severe affliction, we should not pass over the plan of Abernethy—alteratives and low diet. This has, unquestionably, in several instances, given great relief, and in a few, we believe, effected a cure; but, still, it was far from being even generally successful. Before coming to the latest remedy—the remedy of the day (carbonate of iron) we may just glance at the principal *external* applications which have been tried in mitigation or removal of this painful malady.

Leeches, especially on the Continent, have been the most successful topical application; and where the disease depends on an inflammatory affection of the nerve or its neurilemma, as we believe it often does, we can have no difficulty in accounting for the success of local bleeding. Where the disease, on the other hand, has for its cause a constitutional derangement (as no doubt it often has) or a morbid sensibility of the nervous system generally, then local bleeding can do little good—nay, it may do positive harm, as appeared to happen in Dr. Yeats's case to be presently noticed. The same observations apply to blisters and other exutories. In the *Gazette de Santé*, for September 1816, Dr. Barras relates a case of neuralgia of the spermatic cord cured by moxa. In this case a periodic but violent hemicrania had been cured five years previously by a blister to the nucha. The same patient afterward became affected with teasing and lancinating pains in the left epididymis and spermatic cord, inducing, at length, considerable testicular inflammation, which was subdued by the usual means. Thenceforth the pain was uninterrupted, but variable in severity. In the worst paroxysms, the pain radiated to the nates, the left thigh and leg, in the course of the *vas deferens*, and to the bladder and urethra, inducing frequent desire to void urine, with a scalding in passing it. *Leeches*, *poultices*, *anodynes*, and a

caustic issue, gave no relief. Under these circumstances, moxa was applied on the pained part, which partly removed the pain. Another application was made fifteen days afterward, which effected a cure.

In Mr. Beddingfield's "Compendium of Medical Practice," published in the year 1816, there is related a case of *tic douloureux*, cured by the application of *cerussa*, so as to paralyze the nerve affected. This was under the direction of Sir Astley Cooper, in a case which had resisted every other remedy, including the knife. Two scruples of the carbonate of lead were formed into an ointment, and rubbed in the morning on the affected cheek, about an hour before the paroxysm was expected. This application was continued for a month or more, and the man left the hospital cured. The effect of the lead is represented as rapid and striking, the patient being rendered comparatively comfortable in a short time, from a state of excruciating torment. The lead produced no particular effect on the bowels or general system.

Carbonate of Iron. About two years ago, Mr. Hutchinson, of Southwell, published a small pamphlet containing six cases of *tic douloureux*, cured or relieved by carbonate of iron, taken in large doses. Of these cases we gave an account in the first volume of the present series, p. 111, *et seq.* A second edition of this work has just appeared, containing a considerable number of communications from medical practitioners in various parts of the kingdom, bearing testimony, more or less, in favour of the remedy under review. We were a little disappointed, to find that Mr. Hutchinson has published only three or four *additional cases of his own*, in this second edition, (and some of them not of the most satisfactory kind,) though he states, that more than two hundred cases have come under his care since the first edition of his work. We do not think the excuse which he offers is a good one—namely, the fear of swelling out his book. We imagine that the pages of a medical work could scarcely be better employed, than in recording authentic cases of *tic douloureux*, especially where a new remedy, of such pretensions as the carbonate of iron, was on trial. We do think that it is incumbent on Mr. Hutchinson to give these cases, or an abstract of them, to the public, through some medium or other; and to state the unsuccessful, as well as the successful issues of all. We shall now proceed to lay before our readers brief abstracts of the additional facts contained in the volume under review.

Case 1. This case was transmitted to Mr. Hutchinson by an

eminent physician in London. A Baronet experienced a first attack of tic douloureux four years ago, and has since suffered four or five paroxysms daily, particularly when washing his face, or eating. The patient was dyspeptic, leucophlegmatic, and of languid-circulation. He had tried a variety of remedies. From Mr. Abernethy's plan he had derived, at one time, essential benefit. "When at the sea-side, he has been entirely free from the complaint." Being in great-pain from the disease, he began the carbonate of iron, as recommended by Mr. Hutchinson, and felt relief in two or three days. In ten days, he was not only free from pain, but greatly improved in health. He has lately experienced some very slight attacks; and when the premonitory symptoms occur, he has recourse to the same remedy, which speedily removes them.

Case 2. (Communicated by Mr. Richmond, of Grimsby, in Lincolnshire.) Mrs. Vicars, a delicate woman, 30 years of age, suffered for four years with "severe and acute pain along that branch of the fifth pair of nerves, passing to the maxilla inferior, and particularly affecting the mental nerve." This pain was periodical. She had received an injury on that side of the jaw eleven years before. Various means had been used with little success. A drachm of the carbonate of iron was ordered to be taken three times a day, and on finishing twenty-four powders, she expressed very great amendment," but the iron had produced salivation, (an effect which it frequently has, according to Mr. Hutchinson's experience.) She persevered, however, and a perfect restoration of health was the consequence. Mr. Richmond, in a eulogy on his revered tutor, Mr. Abernethy, expresses his conviction, that this was a local disease from disordered digestion.

Case 3. Dr. Carter, physician to the Kent and Canterbury Hospital, has communicated the following case to our author. A man, 58 years of age, who had led an intemperate life, was seized in the middle of October, 1820, with a violent pain, commencing at the upper jaw, and extending, in a short time, over the whole of the left side of the face to the temple. A molaris removed, but no relief followed. Two more teeth were extracted, but the pain became severer than ever. No means gave permanent, and opium only transient, relief. When he presented himself at the hospital, he was in a state of general debility, pulse feeble, tongue foul, bowels constipated. Decoction of bark, with ammoniated tincture of guaiacum every three hours—Dover's powder at bed-time. Three weeks' perseverance in this plan produced evident bene-

fit to the general health, but no mitigation of the neuralgia. The carbonate of iron (a scruple every three hours, made into an electuary) was prescribed. In ten days the patient was free from pain, his appearance much improved, and only a numbness of the side of the face remaining. He was ordered to take decoction of bark and aromatic confection to secure against relapse. He continues perfectly well.

Case 4. This, and the succeeding case fell under the inspection of Mr. Hutchinson himself.—Mr. Todd, a farmer of Faunfield, 26 years of age, began to have uneasy sensations in the left side of his face about 18 months ago, the pain extending to the ala nasi, upper lip, superior bicuspid teeth, temple, and lip. The infra orbital nerve and its ramifications appeared to be the seat of the disease, which came on in irregular paroxysms, sometimes mild, sometimes violent, but without any assignable cause. Three molares had been extracted under the idea that the disease originated from them, but without effect. Mr. H. prescribed the carbonate of iron in doses of a drachm three times a day, directing, at the same time, an ointment composed of tartrate of antimony, powdered opium, camphor, and mercurial ointment—one drachm of which was rubbed on the cheek every evening, until a plentiful crop of pustules appeared. It was then suspended, and renewed again when the pustules dried off. This plan was persevered in for three weeks, with very little effect. The medicine now began to produce uneasy sensations in the bowels, which were removed by combining *confectio aromatica* with the carbonate. During the next six weeks the patient continued gradually gaining ground, “and is now perfectly well.”

Case 5. Thomas Neep, residing in Southwell, 55 years of age, of scrofulous diathesis and of former intemperate habits, had been subject to *tic douloureux* during the last ten years. The facial pain was preceded by, and accompanied with giddiness, torpor and other symptoms of determination to the head, which were properly treated by local and general depletion, but without any diminution of the neuralgia.

“The paroxysms generally began in the upper gums, extending upwards under the eye, diverging towards the ala nasi, and the whole of the right side of the face. The pain was not of the continued, obtuse kind, like that of chronic rheumatism, but, on the contrary, rather transient, exceedingly acute and lancinating during its attack. The periods of its recurrence were indefinite, in the intervals of which he was in tolerable ease. There was some uniformity in the direction and origin of the pain: it always began in



the gums and upper lip, and darted upwards towards the orbit: the same sensations were also observed on the bony and fleshy palates, on the gums and teeth of the upper jaw, and sometimes on the fauces." 114.

Nine sound teeth had been extracted at different times, without producing any change for the better; and the same was the result of various internal and external remedies. In the month of March last he came under our author's care, and began to take a drachm of the carbonate of iron twice a day, mixed in honey, and to make use of the emetic tartar ointment, with camphor and powdered opium applied to the face every night. Five weeks' careful perseverance in this plan brought some slight alleviation; but the medicine produced considerable diarrhœa, which, however, was checked by a few drops of the tinct. opii. His torments, though mitigated, were still almost insufferable, and therefore the carbonate of iron was increased to four scruples three times a day, in which quantity he persevered for two months, when the violence of the disease began evidently to yield; and after a perseverance in this increased dose for three months, his pains left him. He was seen, "this day, August 28," (this must have been 1821,) when he declared his comforts and his feelings to be "too great for description." Nevertheless the patient, at times, had "slight sensations reminding him of his past sufferings."

Three months after the date of the above report, the patient having been exposed to great vicissitudes and inclemencies of weather, a recurrence of the disease took place, (though not to the same extent as before) and our author could not prevail on him to resume the remedy. He is therefore still suffering at times from his old enemy.

Case 6. Mr. Jeffrey Dennis (author of a plan for bettering the condition of seafaring people) writes to Mr. Hutchinson that, having been afflicted with toothach, in the year 1798, he had the tooth broken, and from that time dates the commencement of tic douloureux. Having continued nearly two years, it then disappeared for some years. In 1817, when Mr. Dennis was very busy in planning for the relief of our sailors, his horrible enemy assailed him, and resisted every remedy, till Mr. Hutchinson's pamphlet fell in his way, when he began the carbonate of iron, taking two drachms and two scruples twice a day, from the 26th January, till the 23d July, when he experienced a complete removal of his agonies." He took it in honey, and made use of opening pills and Epsom salts occasionally to obviate costiveness.

Case 7. This was a young lady residing at Mansfield, who had been afflicted with a painful affection of the left side since October, 1818, and which had been gradually increasing in violence for some months. The disease was accompanied with great debility, loss of appetite and sleep, and so great was the dread of the painful side being touched, that she could scarcely bear to be moved in bed. She had consulted the first physicians in England, but with little relief. When she applied to our author, she was suffering the most excruciating pain in her left side, with considerable uneasiness in the right hypochondrium. The pulse was 100, and the debility excessive. "The cutaneous and intercostal nerves appeared to be the principal seat of this truly painful and melancholy affection." The lady commenced the carbonate of iron in the month of November, 1820, and continued it, with some few modifications, until the complaint entirely left her, in the February following. She continued the medicine, however, for some months longer, and up till the present time at intervals.

Case 8. Communicated by Mr. Richmond of Grimsby. Mr. Overton, a stout man, turned of 60 years, had suffered severely from repeated attacks of dyspepsia, and general derangement of the digestive organs. About two years ago he began to be affected with an intermitting pain along the inferior maxillary nerve, which gradually increased till it became almost insupportable.

"Mr. Richmond witnessed several paroxysms of pain which produced the greatest agony and distraction, obliging Mr. Overton to run up and down the house with his hands to his mouth, exclaiming violently during the fits, which were very uncertain both in their duration and the succeeding interval, and equally sudden in their accession and departure. In a moment he would exclaim, 'Oh! it's come,' or, 'Oh! there, it's gone:' he then would continue easy for a longer or shorter period. The torment would continue sometimes five minutes, sometimes ten, or even longer." 135.

Mr. Richmond gave the patient the carbonate of iron, agreeably to Mr. Hutchinson's plan, "and in ten days he was wholly free from pain, and has now continued exempt from all complaint for more than two months, except that last week he felt a particular cold sensation in his gums, which induced him to send for a repetition of his medicine; there has not, however, been the least return of pain." 136.

Case 9. Dr. Alderson, of Hull communicates a case of neuralgia situated in the female mammæ. The patient was a corpulent woman, 51 years of age and past menstruation.

breasts were so morbidly sensible that the action of
ing the hand over them gave exquisite pain, and caused
expression of countenance characterizing *tic douloureux*.
There was no alteration of structure. The carbonate of iron
prescribed, and in a fortnight removed the mammary
n. It returned in a month, and again the medicine
which Dr. A. thinks is as necessary to the patient as her
ad,) was resumed. "She has perfectly recovered her
mer health."

Case 10. Is from Dr. Marshall Hall, of Nottingham.
The patient was a school-mistress, 58 years of age, who
became affected seven years ago with "excruciating pain
pursuing the course of the cutaneous nerves, down the out-
side of the thigh and leg to the sole of the foot." The pain
becoming so constant and severe, the patient was obliged to
relinquish her school. The operation of dividing the nerves,
and all kinds of internal medicine failed. Four months ago,
she began to take half a drachm of the carbonate of iron
twice a day, which she had persevered in up to the present
day—December, 1821. In about six weeks there was some
very trifling mitigation of the pain; but it gradually, though
almost imperceptibly, yielded to the powers of the iron. The
patient's general health improved, her bowels kept regular,
and her strength and flesh returned. She has now resumed
her scholastic labours.

Case 11. This is detailed by the patient himself,
Ludovic Houston, Esq. of Johnstone Castle, near Paisley.
For five years this gentleman laboured under a nearly con-
stant headach, which had been treated as rheumatic, bilious,
or nervous, according to the views of the practitioner. We
shall give the following sketch of the complaint in the pa-
tient's own words:

"The headach is confined entirely to the forehead, chiefly seat-
ed above the right eye, sometimes the whole of my forehead is af-
fected, and the pain will occasionally remove suddenly to the left
temple. I have every day a violent throbbing in both temples, and
the pain is sometimes entirely confined to a tooth in the upper jaw,
and extending to the nose. The painful sensation is seldom very
acute; it continues sometimes the whole day, at others an hour or
two, and when the teeth and nose are affected, it seldom lasts more
than half an hour, and at times only a few minutes. My digestive
organs have all along been very much out of order, and for the
last three months, I have taken purgative medicines and mercury
to a great extent. There is a peculiarity attending my evacua-
tions, to which I wish very particularly to call your attention. I

have voided every day during the above period, immense quantities of slimy stringy mucus, varying from very dark to light colour, and sometimes very black and foetid. I have generally three evacuations every day, composed entirely of this morbid mucus, and notwithstanding the long continuance of the purgatives, never having omitted them for a day, there is still very little diminution of this excretion." 144-5.

Various remedies were tried, as galvanism, arsenic, cinchona, blisters, local bleeding, and purgatives. The latter class had some good effect. Mr. Hutchinson prescribed a drachm of the carbonate of iron three times a day, accompanied with a tonic mixture of decoct. cinchonæ cum extracto ejusdem. A pill was ordered at bed-time, containing a grain of extr. stramonii, two grains of sulphate of zinc, and three of rhubarb;—the bowels to be kept open by the decoct. aloes; diet to be nutritious, and some wine to be allowed. From this plan decided benefit was obtained in two months. In the course of six or eight weeks longer the enemy rallied, but with not quite such force as before. The disease has not been eradicated, but the remedy "keeps within very tolerable bounds this foe to his former peace and happiness." 150.

Case 12. This who was a patient of Dr. Payne's, (Physician to the General Hospital, near Nottingham) was cured very rapidly of neuralgia faciei, by large doses of the carbonate of iron. He relapsed, and was again relieved from the attacks of the disease by the same remedy.

Cases 13, 14. Next follow two cases which happened in the practice of Mr. Cass, a very respectable surgeon of Leeds, communicated by Mr. Hey, of the same town. The first case was that of a female, 54 years of age, who was attacked with tic douloureux on the right side of the face, which resisted the usual plans of treatment. Mr. C. put her on a course of carbonate of iron—half a drachm every four hours, night and day, which was gradually increased till she took a drachm at each dose. No sensible effect resulted during the first fortnight; but afterward the paroxysms became less violent, and at longer intervals. By a perseverance in the remedy for four or five months the disease was eradicated, and has not since returned.

Case 15. Dr. Marsden, of the Nottingham Hospital, has stated a case that occurred in his practice. The patient was a married woman, who had, for some time, laboured under great pain in the course of the left sciatic nerve, which, at

length confined her to her bed. Her strength and flesh were much reduced—pulse, bowels, and catamenia regular, appetite bad. Our author put the woman on a course of carbonate of iron—two scruples thrice a day till the complaint left her, which was in a fortnight or three weeks.

Dr. Ayre, of Hull, has had three well-marked cases of tic douloureux, in which success was obtained by the carbonate of iron, exhibited in the manner already so often described. A case is also transmitted to our author, by Mr. R. S. Hutchinson, dresser at Guy's Hospital, where a man was cured of tic douloureux by the remedy under consideration. Sir Astley Cooper informs Mr. Hutchinson that in the few cases in which he had an opportunity of trying the carbonate of iron in tic douloureux, he had observed the benign influence of the medicine over the complaint.

We now come to Dr. Yeats's pamphlet, in which is given a very minute detail of a most painful neuralgic affection, which occurred, we believe, in the person of Mrs. Yeats. This lady awoke, on the morning of March 7th, 1822, with a feeling of uneasiness on the outer ankle, and a little up the calf of the right leg, resembling a cramp, with a numbness of the great toe. During the day, the pain increased, the numbness extending from the toe across the instep. By the evening, the pain had reached the knee, and the whole of that night was passed in much pain. 8th. Fourteen leeches were applied in the line of the pain; but they brought no relief. By the evening, the pain had stretched up the thigh in the line of the sciatic nerve. On this, and also on the preceding night, she had taken four grains of blue pill, followed up the succeeding mornings by a saline aperient. 9th. A blister applied; but the pain still continued to increase, and prove very violent in paroxysms. As the abdominal secretions were evidently deranged, some mercurial medicine, with hyoscyamus and antimonial powder were given every night. On the 12th, the gums were a little affected, but no diminution of the pain was perceptible. The bowels were easily excited and very sensible;—*the mildest medicine operating and producing pain.* "The nervous coat had evidently acquired a great morbid sensibility." This, indeed, seemed the case with the sentient extremities of the nerves pretty generally: On the 14th, Sir Henry Hallford met Dr. Yeats, and they agreed that the "disease was a pure affection of the nerves of the leg and thigh, unaccompanied by any morbid state of the muscular and tendinous parts." The pulse was not hurried by any febrile movement, even under the most acute suffering—in general, it was from 56 to 62 in the minute, and soft. It was agreed to keep the bowels open by mild medicine, and

full the pain by narcotics. Little or no relief followed a gentle anodyne diaphoretic ;—and the same was the case after considerable doses of hyoscyamus, conium, and pulv. ipecac. comp. Mr. Brodie opened the vena saphena, but very little blood was obtained. The patient, however, thought herself better afterward. But still, after this, the returns of pain were frightful. About the 20th March, colchicum was tried ; but it irritated the bowels, and produced no good. On the 24th March, the cinchona was commenced, combined with a small quantity of laudanum, and this medicine was continued till the 3d of April, “with decided relief to the pain, and by the acquirement of more comfortable feelings of general health ;” but still the pain and distress were, at times, so excessive, that it was necessary to give large doses of laudanum, such as 20 drops every six hours. On the 1st and 2d of April she took considerably more than this. The disease having now lasted a month, without any prospect of recovery, it was determined to have recourse to steel, in the manner recommended by Mr. Hutchinson. The subcarbonate, therefore, in half-drachm doses, was commenced on the 3d April, and was continued in modified quantities, till the 14th, with considerable mitigation of the pain. At this period, the catamenia recurred, and produced an aggravation, which, however, was but temporary. After this, the medicine was prescribed in the following form, which agreed far better with the patient’s stomach and bowels :—Pulv. ferri subcarb. ʒss. —p. rad. rhei—p. zingib. ana, gr. ij. ft. pulvis. This was followed by a cordial draught, composed of infus. caryophyll. ʒx. sp. ammon. aromat. ʒss. “The happiest effects followed this mode of exhibiting the steel ; no more laudanum was taken ; the pain began so far to subside, and the paroxysms not to be brought on by pressure, that she slept very well at night ; she sat at table at her meals, and was able to resume her domestic functions, with only a reminiscence, by some aching in the limb, that she had had disease there.” 18.

“It appears to me,” says Dr. Yeats, “to be undoubted, from a review of the case, that the patient is greatly indebted to the Subcarbonas Ferri for her release from this painful complaint, and it is of great importance in the consideration that the sensations of the patient are entirely in its favour. It seemed to have a direct and speedy effect upon the nerves in soothing them by its impression upon the stomach, notwithstanding the large dose in which it was given.” 21.

For many interesting observations on neuralgia, and, also, some cases of the disease, which occurred in Dr. Yeats’s own practice, we must refer to the work itself.

The length to which this paper has already extended, must render our concluding observations more brief than we ori-

ginally intended them to be. From all that we have seen and read on the subject we are inclined to view neuralgia as, in far the greater number of cases, "*a local affection possessing a constitutional origin*;"* or at least intimately connected with a disturbance of the system. Mr. Abernethy states his belief "that this disorder is as much constitutional as either gout or rheumatism." The numerous instances now on record, (and, indeed, the facts collected in this article alone,) of the complete and permanent removal of the malady by *internal* remedies, constitute a mass of evidence clearly indicating the constitutional origin of neuralgia. At the same time we need hardly state that, from this definition, all those forms of the affection, arising from the infliction of external violence, must be obviously excluded. Viewing tic douloureux in this light then, is it, or can it be, ever advisable to divide the nerve? At first sight, it might appear preposterous to have recourse to a surgical operation, if the origin or cause of the disease be constitutional, or, at least, at a distance from the seat of pain. But on a little reflection, it will be remembered that, in organic, as well as inorganized bodies, an effect is frequently seen to become independent, and survive the destruction of its parent cause.† When, therefore, we find the local affection continue unimpaired, when the constitutional disorder, from which it arose has been removed, we think there would be just grounds for having recourse to division of the nerve. Again, when the local disease becomes unsupportable, from the intensity of the pain, or other attendant phenomena; or if it appears to react so much on the constitution, as to frustrate the operation of internal remedies, would it not be allowable to obtain by the knife, a truce with the urgent local symptoms, while advantage is taken of the remission to attack the primary disease?

From a review of all the cases hitherto recorded of this painful disease, it appears, that more than three-fourths of the patients manifested a deranged state of the digestive organs; and, we conceive that the salutary operation of all the

* Dr. Palmer's definition. New Med. and Phys. Journal, Vol. IX. p. 177.

† "It will not be overlooked, that it is an object of the highest importance, in all these distressing situations, to endeavour to ascertain any cause that may exist in some distant part as the fountain of the painful symptoms, and to adopt every feasible method for its removal; but when this is apparently done, complete success is not found uniformly to follow, for the primary cause of all the original evil may be removed, and still, from new circumstances, habits &c. the effects remain to keep up extensive pain and mischief." Mr. Hill, on Tic Douloureux, Edinburgh Medical and Surgical Journal, vol. vi. p. 57.

most successful remedies, (excepting the narcotics,) consisted in restoring these organs to a better state, and correcting their depraved secretions. We think, however, that the cinchona, and the steel, may owe a great deal of their success in tic douloureux to their tonic effects on the whole system, by which the morbid sensibility of the nerves in general, is lessened; and, particularly the nerves of the chylopoietic apparatus. We apprehend then that, where there is no evidence of local injury, the most rational and successful mode of treatment will be found to consist in evacuations from the stomach and bowels—alteratives—tonics—and anodynes. Of the class of tonics, we think the carbonate of iron seems, from the experience yet acquired, to be the most powerful and successful in tic douloureux, and, therefore, we have no hesitation in saying, that the profession, and society at large, are under deep obligations to Mr. Hutchinson for its introduction as a remedial agent in so direful a malady.

III.

1. *Researches respecting the Medical Powers of Chlorine, particularly in Diseases of the Liver; with an Account of a New Mode of applying this Agent, by which its Influence on the System can be secured.* By WILLIAM WALLACE, M.R.I.A. Member of the Royal College of Surgeons in Ireland; one of the Surgeons to the Charitable Infirmary, Jervis-Street; Surgeon to the Dublin Infirmary for Diseases of the Skin; Lecturer on Anatomy and Surgery, &c. Octavo, pp. 164. London, 1822.
2. *Observations from Experience, on the Aid obtained in various Diseases, particularly those incidental to Tropical Climates, by the external Application of the Nitro-Muriatic Acid in a Bath; together with several Cases in which it has been used by the Author with great efficacy; to which is added, the present most approved Mode of mixing the Acids and preparing the Bath.* By PHINEAS COYNE, Member of the Royal College of Surgeons of London; and late of the Honourable East India Company's Service. One vol. 8vo, pp. 140. London, 1822.

WE have reason to think, that the benefits which might have accrued to society at large, from the nitro-muriatic acid, have been prevented, at least for a time, by the indiscrimi-

nate application of the remedy to all cases, whether appropriate or not, by the very respectable, but we fear somewhat visionary, author of the proposal. Over Dr. Scott, however, the billows of the ocean now roar unheeded, or his body perchance, is covered by a clod of *foreign soil*; we should not be surprised therefore to see his favourite remedy revive, and come to its proper level among the various means which we employ to mitigate or remove disease.

The great power of external applications over the functions of the internal organs, is now universally admitted, although physiologists may dispute respecting their *modus operandi*, and the ball of contention may be long bandied about between sympathy and absorption. We believe that both these processes obtain, as the warm bath and mercurial frictions might alone convince any plain, practical, and unbiassed mind. The analogies that exist between the cutaneous and mucous surfaces, whether we consider their structure or their functions, would lead us to a belief in the reciprocal influence which they exert on each other, and which daily observation confirms.

“As instances of these analogies, it may be observed. 1st, They are both endowed with that kind of sensibility, which enables them to bear with impunity the impressions of foreign bodies. 2dly, They are both protected from the influence of these bodies by an inorganic covering: thus, an epidermis covers the cutis, and the chorion of the mucous membranes is covered by an epidermis, by a mucous fluid, or by both. 3dly, They are the seat of all the excretions. 4thly, It is by these surfaces that all substances are introduced into the body from without. 5thly, The capillary portion of their vascular system has the same arrangement. In the foregoing characters, they resemble each other, and, by the same characters, they are distinguished from the rest of the organs or tissues of the body; but, perhaps, the most striking proof of their resemblance is to be derived from the circumstance of one being convertible into the other. It is said that some animals of very simple organization can, like the finger of a glove, be turned inside out, and will continue to live; their cutaneous surface becoming mucous, and the mucous assuming the character of the cutaneous. The same transmutation even occurs, to a certain extent, in the human body, when a mucous surface is brought into that situation, which is natural to the cutaneous, or *vice versa*. Thus the mucous membrane of a prolapsed vagina will take on the character of skin; and skin often assumes the nature of a mucous surface, when it is exposed to moisture for a considerable time, as sometimes happens at the folds of the nates, &c. As a further proof of their resemblance, it may be also observed, that the cutaneous surface of the globular hydatid performs the function of both skin and mucous membrane; for, as this animal is not provided with a mouth, all its nutriment must enter by means of the absorbents, which open on its external surface.” 5

When, again, we consider the number, complicity, and delicacy of the organs over which the mucous membrane is expanded, and the disorders both temporary and permanent, which are frequently produced in their functions, by the application of irritating substances to the said expansions, we should endeavour to limit the exhibition of medicines internally as much as possible, and take all opportunities of seeking for succedanea in external remedies.

Mr. Wallace, after enumerating the various substances which, when applied to the skin, have been found, by experiment, to produce effects (whether by sympathy or absorption) on the internal organs, remarks, that we have every reason to expect a much more decided effect from these external applications, when in a gaseous form, and when the skin is in that state of excitement which necessarily arises from its exposure to a higher range of temperature than under the common modes of application, when the substances used are in grosser forms.

"For, under this exposure, all the vital actions and properties of the organ, both organic and animal, and consequently its sensibility and powers of absorption, are, as far as we can judge, increased. Moreover, it can scarcely be doubted, that medicines, when they are reduced to the state of extreme division, in which state they are, when in the form of gas, will act more efficaciously than when in a grosser state; and this whether their action result from their direct influence on the skin,* or by gaining admission into the mouths of the cutaneous absorbents. In short, those effects, which hypothesis would lead us to expect from the influence of medicated vapours or gases, applied to the skin, are realized in practice, and perhaps the greatest modern improvement in therapeutics consists, not certainly in the *invention*, but in the perfection and extension of the mode of applying such agents to the surface of the body, for the purpose of influencing the actions of our system." 18.

It is well known that individuals of peculiar idiosyncrasy, have skins that resist mercurial frictions, and the same seems to be the case in respect to the nitro-muriatic acid bath. We have used it in a very considerable number of cases, and

* "Il est reconnu que ces vapeurs, qui sont pour ainsi dire un être moyen entre l'air et l'eau, sont bien plus pénétrantes et plus actives que ce fluide, lorsqu'il est soumis aux lois de la cohésion; une grande partie se condense sans doute sur le corps plus frais qu'elles; mais il n'en est pas de même de toutes; au moins l'expérience nous apprend que les vapeurs de vinaigre agissent bien plus fortement sur le plomb que le vinaigre sous sa forme fluide." "De la Nature et de l'Usage des Bains, par HENRI-MATHIAS MARCARD. Traduit de l'Allemand, par MICHEL PARANT. Paris, 1801." p. 218—19.

have found it apparently inert in some persons, and in others efficient. This seems also to have been the experience of our author, who was thence led to find out the means of employing the remedy, or at least the active principle of it (chlorine) in the form of gas or vapour.

Mr. Wallace accords in opinion with Boerhaave,* and the late Dr. James Curry, that the number of diseases which depend, more or less, on derangements of the biliary system, exceed all others taken conjointly—and he attributes the great success in the practice of Curry, Hamilton, and Abernethy, to their adoption of views more or less in accordance with this principle.

Our author next goes on to the relation of cases in elucidation, arranged according as the liver was primitively or consecutively affected.

Before entering on these cases, it may be proper to state the mode of preparing and applying the chlorine, which our author has used.

For the administration, both partial and general, of diluted chlorine, Mr. Wallace employed, for a long time, Rapou's instrument for *Douches*, and the common fumigating apparatus of this and other countries, which, on the whole, answered very well. Latterly, however, he has constructed a very ingenious portable apparatus for the administration of chlorine, and all other vapours and gaseous bodies, a beautiful model of which we have seen in this metropolis. In an hospital, the apparatus can be carried from ward to ward, and yet possesses all the advantages of an immoveable vapour bath.

“ The following is the manner in which I procure the gas. I keep always ready prepared a mixture of muriate of soda and of the black oxyde of manganese, well triturated together, in the proportion of three parts of the former and one of the latter ; and also a quantity of sulphuric acid, whose specific gravity is to that of water as 1400 is to 1000. By mixing four parts of the compound powder with three parts of the acid, and applying a gentle heat, the gas is quickly brought over, and may be then used, according as it is required for general or partial application. I keep the manganese and muriate of soda ready mixed for greater convenience ; and I prefer an acid, diluted as I have mentioned, to that of the strength of either the London or Dublin pharmacopœias, for the purpose of preventing the mixture from boiling over, which often happens, when the acid is used in too concentrated a state.” 131.

* Boerhaave has said that out of one hundred chronic diseases, there was scarcely one, in which the liver was not affected.

It is impossible to state the quantity of chlorine, which may be necessary for each general fumigation, as that will vary according to the temperature at which it is used, the perfection of the apparatus, the sensibility of the patient's skin, &c. It should always be employed in such quantity as to produce the peculiar sensations which arise from its proper application. If the apparatus be good, no gas will escape to incommode the patient's lungs. If imperfect, it will be very much otherwise. About half an hour will be a medium time for the chlorine fumigation. The general effects of the application of chlorine to the surface were an increased secretion of bile—and that very often without purgation. The proof was, "the extreme bilious character of the *feces*." "They are often coloured, as if they were composed almost entirely of the most concentrated biliary matter, and this whether they be solid or fluid." We agree with our author that an increased secretion, and an *accumulation* of bile may take place without necessarily producing purgation; and yet we are convinced that a due secretion and healthy quality of the bile, are the most natural and permanent stimulants for the due action of the intestines.

We shall now proceed to take some notice of the cases detailed by Mr. Wallace.

The first case is that of simple jaundice in a lad aged 19 years, whose skin was completely yellow and stools white for six weeks before he came under our author's treatment. With all the usual symptoms of icterus, he was free from fever, but had "great uneasiness in the epigastrium, (increased by pressure) extending into the right and left hypochondria—dull, oppressive pain in his forehead, &c." After exhibiting *colocynth* and salts, which only produced some scanty, whitish, sour, and liquid stools, the whole surface of the body, from the neck downwards, was exposed for half an hour to the influence of chlorine, at a temperature of 110°. While in the bath, he said that he felt as if all his skin was pricking by small needles. Next day, as there had been no motion, the purgatives were repeated, and so was the chlorine fumigation. *3d day*. The stools to-day were partially tinged with bile. The chlorine repeated. The stools were now spontaneous, and very much impregnated with bile. The fumigation was continued, and on the fifth day of application he complained of soreness of his mouth, while the surface of the body presented, in various places, minute bright red papulæ. The icteritious phenomena were now all on the decline. The fumigation was continued for ten or twelve days from the commencement, at which time he was discharged from the infirmary cured.

"It may be easily conceived how much I was gratified by the results of the foregoing case. It was the first, which I submitted to the action of chlorine; and it fully satisfied me, as far as one case could, of the specific influence of this agent on the liver, and of the advantages which might be expected from its employment." 30.

We have seen a similar effect produced by the nitro-muriatic acid bath. The above case adds one to the great number now on record, where the intimate consent between the cutaneous and hepatic functions is manifested.

The second case is that of an unmarried lady, aged 35, whose liver was evidently much enlarged and indurated, but not very tender on pressure.

"She says she has, at all times, a sensation of dragging in the right side of the abdomen, an incapability of lying on the left side, and a feeling of oppressive weariness in both her shoulders. She is pallid, and appears much emaciated,—bowels constantly demand the influence of purgative medicine to secure an occasional evacuation, which is almost always of a dirty ash-colour,—urine variable, but generally turbid and of a deep brown colour,—skin very harsh, dry, and extremely itchy at night,—feet slightly œdematous,—appetite not very deficient,—digestion much impaired. There does not appear to be much febrile excitement." 32.

This lady had used a variety of remedies, and among the rest mercury, without material benefit.

Our author ordered the general application of chlorine in the dry form, for half an hour each day, at the temperature of 104 F. and aqueous vapour and chlorine to be directed in a stream on the region of the liver, for 15 minutes at a time daily. The bowels were also ordered to be cleared daily, by means of pills composed of scammony, aloes, and soap. Having persevered in this plan very steadily for a fortnight, her mouth and throat had become a little sore, the salivary secretion increased, and there was a thick papular eruption brought out over the region of the liver by the topical application of the chlorine. The symptoms were now, however, much meliorated; and another fortnight's perseverance rendered "the state of this patient wonderfully improved." In short, she completely recovered, though it took a considerable time for that purpose.

Although we have no doubt that the use of the vapour bath proved a powerful auxiliary in the above case, yet knowing as we do, what a long course of purgative medicines will effect in such cases, we must hesitate in considering the history as so very "illustrative of the great and salutary powers of the chlorine in chronic enlargements of the liver," as our author is disposed to pronounce it. All we can say, however, is—"valeat quantum valere debet."

Our author has since met with several analogous cases in hospital practice, and with similar success.

"What, it may be asked, was the *immediate* cause of the favourable result? I would answer, partly the specific influence of the chlorine on the action of the liver; and partly the local irritation, which it produced in the skin covering this organ. The very seasonable return of the menstrual discharge, and the preternaturally lax state of the bowels, which supervened during the treatment, and which were, no doubt, the consequence of it, had also a very considerable, and a very beneficial influence, in the removal of the disease." 38.

Mr. Wallace believes, and we agree with him, that chlorine exerts a specific influence on the hepatic functions—that is, it increases the biliary secretion.

"We know," says he, "from general experience, that one of the most efficacious ways of subduing a tendency to disorganization, or even an actual alteration in structure, of a glandular part, is by increasing and modifying its secretory actions. In this way, then, do I conceive that the remedy acted, at least in part, in the foregoing case." 38.

Mr. Wallace thinks, that practitioners are not sufficiently aware of the benefit to be derived from "a continued irritation of the skin, or a discharge from this organ, for the relief of deeply seated viscera when affected by chronic disease."

Our author relates an interesting case of a lady, who had suffered, during a space of four years, from a severe periodical pain, apparently seated about the cartilages of the ribs, on the right side, which recurred every two or three days, with harrassing violence, to be mitigated only by opium, the bent-forward position, and pressure. As long as the pain lasted, there was generally nausea, and sometimes vomiting. The liver felt tumid in the epigastrium, but did not descend perceptibly below the ribs—appetite bad—digestion painful, with flatulence and acidity—bowels irregular—stools unnatural—urine scanty and turbid—tongue foul in the mornings. She had been under many respectable practitioners, and the resources of medicine had been tried without success.

On the succeeding day, our author personally witnessed one of these agonizing attacks, and immediately administered a dose of laudanum, and ordered hot fomentations, after which, bitters and aloetic aperients were prescribed daily. He moreover directed the general application of chlorine, in conjunction with watery vapour, at the temperature of 98°, for twenty minutes daily, and a similar topical application to the region of the liver, for ten minutes at a time, every second day. This plan was continued, with very little modi-

fication, for six weeks, when her mouth and throat became sore, with an increased discharge of saliva, considerable cutaneous irritation over the region of the liver, and, also, a general papular eruption over the body.

“ The amendment has been such as must appear extraordinary to every one acquainted with the obstinacy and intractable nature of such cases. For five days after she had begun the employment of the chlorine, there was a sensible diminution in her sufferings ; and, for the last eight days, she has not had any return of the periodical pain. The pain seated in the epigastrium is almost entirely removed. There is also, in other respects, a very material improvement. Her colour is much less yellow, and she appears to be regaining her flesh.” 43.

It is evident that the means employed here, independently of the chlorine impregnation, were well calculated to mitigate the symptoms, if not remove the disease. We have seen several cases of this kind, which we at first attributed to gall-stones, but which we afterward thought were owing to some spasmodic affection about the gall-ducts and duodenum. They were relieved, and most of them cured, by a liberal exhibition of opiates and aromatics at first, with the warm bath, and, subsequently, alterative aperients, together with the nitro-muriatic acid bath. There is a lady of our acquaintance, who always keeps the ingredients for preparing the nitro-muriatic bath in the house, and whenever she has any warning of these attacks, she uses the bath to the feet and legs every night for a week or so, and thus wards off the disease. The perceptible effects of the bath, at these times, are an increase of yellowness in the stools—in fact, an increase of the biliary secretion, and a relaxed state of the bowels.

After relating another case in which the liver was obviously affected, and in which the chlorine was successful, our author goes on to the subject of what we might term “ masked hepatic affections,” or cases in which the principal expression of the disease is at a distance from the true seat of it. Those most acquainted with hepatic diseases, whether structural or functional, well know how anomalous are often the symptoms, and how liable men are to be led astray, who expect to always find the nosological characters assigned to diseases by systematic writers, as a sure guide in their practice.

“ The sympathetic affections, which result from hepatic disease, are so frequent, that I believe I may, with great truth, affirm, that there is scarcely an important organ in the body, whose functions are not occasionally disordered by a wrong action of the liver. Is there any practitioner, who cannot immediately recall to his memory numerous instances of disorder of the brain, of the lungs, of the heart, stomach, bowels, uterus, kidneys, skin, &c. &c., which have sprung from this source ?” 53.

The sympathetic connexion between the liver and heart is well known. They affect each other mechanically, as well as sympathetically, more especially when in a state of disorder. We shall select a case or two from our author by way of illustration.

June 3, 1821. Mr. G. about 35 years of age, of active disposition, but sedentary occupation, full, sanguineous habit, but lately of sallow complexion and much emaciated.

"He complains of distressing and almost constant palpitation, with an occasional tendency to syncope. The former is greatly increased by bodily exertion or mental anxiety, but the latter frequently comes on without any apparent cause. His pulse, at present, is irregularly intermittent, and not more than seventy-four in a minute. He also complains very much of a sensation of constriction round the middle and lower part of the thorax, accompanied by a numbness, which extends from his shoulders down his arms to his elbows: This comes on only at intervals. He cannot bear the most trifling fatigue; not only on account of its producing violent palpitation, and most distressing sinking sensations in the region of the heart, but also on account of the profuse and exhausting perspirations which attend it." 58.

These complaints were of about a year's standing, but his health has not been good for three or four years. He had an attack of acute hepatitis three years since, for which he had been bled copiously. He cannot lie on the left side at night, nor bear his clothes of a moderate degree of tightness round the hypochondria. The epigastrium appears full, and tender to the touch—bowels very irregular, but generally constipated, at which times the cardiac symptoms are most troublesome. The urinary discharge is generally turbid, skin unperspirable, and often feeling like a piece of cold marble.

Our author ordered a purgative of salts and senna, which brought away copious gelatinous stools, but no fecal matter. He was then directed to take pills composed of aloes, scammony, rhubarb, and essential oil of cinnamon, every second night, while the chlorine, in conjunction with aqueous vapour, was applied to the general surface for half an hour daily, at a temperature of 110°. He remained under this treatment for nearly six weeks, during which there was a gradual improvement in the appearance of his discharges, they becoming, at last, perfectly natural and regular, without the assistance of medicine; "and exactly in the same proportion, the symptoms which depended on derangement of the heart also subsided." The chlorine rash (hereafter to be described) was pretty severe. The gentleman has continued in perfect health afterward.

We agree with our author that the above was a case of functional disorder of the heart, brought on, and kept up by, a disordered action of the liver and other digestive organs. But as the eczematous medicines combined with the chlorine, were very suitable in themselves, we cannot be safe in attributing the whole of the cure to the latter medicine. At the same time, we have no doubt that the chlorine was mainly instrumental in the patient's recovery.

Our author, since his opportunities of observing cutaneous diseases have become extensive, has had his attention forcibly drawn "to their connexion with the state of the liver." "In fact, (says he) I have so frequently remarked this connexion, that I now never think of entering on the treatment of any disease of the skin, until I have particularly inquired into the state of the liver." Mr. Wallace relates an interesting case of ecthyma in illustration of this connexion. The ecthymatous eruption is one which depends almost always on constitutional disorder, and is frequently mistaken for secondary syphilitic eruption, more especially as mercury has generally a beneficial influence on the disease. "But this, I conceive, (says Mr. W.) is attributable to the action of the mineral on the liver, whose disorder is the source of the cutaneous affection." Our author makes many sensible and acute observations on those affections of the liver which are determined by lesions of other, and sometimes distant organs—especially injuries of the head. To these observations, we would recommend our reader's attention; but we shall quote one case in illustration.

"A man, who had been for many years subject to a violent oppressive pain in the upper part of his forehead, so circumscribed, that it could be covered by the end of a finger, received a wound exactly in the situation of the part which was the seat of pain. The wound was not more than three-fourths of an inch in length. The periosteum was divided, but the bone was not injured. The wound was a simple incision, unattended by any contusion, and inflicted in such a manner that there could not have been the slightest concussion. Immediately after the receipt of the wound, the pain, which had for years almost incessantly harassed him, suddenly disappeared. He therefore considered the occurrence of the wound a most fortunate event; and, at his desire, it was dressed in such a way as to prevent its lips being brought together. In the course of two days, the system began to sympathize very remarkably. A sensation of horripilation and great sensibility of the surface of every part of the body set in. In twenty-four hours after this, the scalp and face were attacked by an oedematous swelling; but the skin was not, at first, in any way red. On the contrary, it was rather pallid; but the scalp became so extremely sensible, that not the least pressure could be borne. About this time, that is, three days

after the wound of the head, the entire surface appeared perfectly jaundiced; indeed as yellow as I have ever seen it in any case of pure icterus. Matter formed in various parts over the scalp, and in the eyelids. The discharge from his bowels became whitish, not having the slightest appearance of bile; but his urine assumed so much the aspect of this fluid, that it seemed more like the contents of the gall bladder than any thing else. It was, nevertheless, sufficiently copious. A low muttering delirium now commenced, which soon became violent, and was particularly marked by an unrestrainable propensity to tear the hair from his head, to pull with his nails at his lips, to beat his sides with his arms, and to gnash with his teeth. Whenever he sunk into a slumber, there was an almost continued grinding of his jaws, resembling that which so often occurs in children, from the disordered state of the alimentary canal and its appendages. He died (very much like a person in typhus) on the tenth day after the receipt of the wound, and seven days from the commencement of the symptoms of jaundice. On dissection, the liver and kidneys were the only parts observed to be morbidly affected. The structure of the former was perfectly natural; but there had been a complete suppression of the secretion of bile. The gall bladder was full of a mucous fluid, much resembling the white of an egg, transparent, colourless, and entirely void of any bitter taste. The kidneys were greatly enlarged. This enlargement appeared, however, to be the result of recent sanguineous congestion. Their pelvis contained the same kind of fluid which had been evacuated as urine. It was, however, in a more concentrated state, and of an extremely bitter taste. The contents of the cranium were in no way diseased. Whether the cessation of the secretory powers of the liver was, in the preceding case, the immediate cause of death, I shall not take upon me to determine. It must, however, be considered as a very remarkable example of the power of external injury to cause very serious functional disorder of the biliary organ." 83.

We must pass over the remaining cases detailed in this volume, in order to convey to our readers some of Mr. Wallace's observations on the "mode of action" of chlorine on the system, when in a state of health. For the purpose of ascertaining this mode of action, our author submitted himself and some of his pupils to the influence of the remedy; and from these trials principally, the following facts and conclusions have been noted and drawn.

1. *Skin.* If the cutaneous tissue be exposed, in a proper apparatus, to the action of chlorine sufficiently diluted with air or aqueous vapour, of the temperature 110° sensations will be excited, in ten or twelve minutes, on different parts of the surface, resembling those produced by the stings or bites of very minute insects, which sensations gradually increase in number but not in severity, and, at length, create a desire to slap with the palm of the hand, the parts which are stung.

These stinging sensations never continue troublesome after the person has come out of the bath ; but they are generally succeeded by an increased degree of itchiness and slight smarting, which, however, terminate before the patient is dressed. Our author has reason to think that the cutaneous structure remains more sensible to impressions, for a considerable time after each operation. An increase of perspiration is another immediate effect of the chlorine application, commencing, in general, with the stinging sensation, and in most instances, proving very copious. This perspiration, Mr. Wallace asserts, "is always more copious than would be produced by the same degree of heat, either alone or combined with aqueous vapour." Our author found himself more disposed to perspire on the night succeeding the chlorine bath than usual ; and to this property of the remedy, he attributes much of the advantages derived from its use.

The most remarkable effect, perhaps, of the bath, is the chlorine rash—an eruption of the most minute papulæ, appearing on all parts of the body, but more particularly on the back, loins, breast, abdomen, and arms. The occurrence of this eruption is always to be considered a beneficial event. Mr. W. has very rarely observed the papulæ to pass into suppuration or vesication. In local applications of the chlorine gas, the skin assumes a red appearance, and, if the application be continued, considerable pain is the consequence. The pain and redness increase, the skin becomes elevated and tumid, resembling, very much, the aspect which the integuments of the face assume under erysipelas, succeeded by a sense of soreness and as if the parts had been contused. These sensations continue for several days, the skin still appearing to be deeply affected, and, at last, being replaced by itchiness and desquamation of the cuticle.

"From what has been said it appears, that the immediate effects which arise from the application of diluted chlorine to the skin are an exaltation of its sensibility and the excitation of peculiar sensations, an increase of its secretions, a preternatural accumulation of blood in its capillaries, and finally an elevation of its natural temperature ; from all of which we are authorized to conclude, that its functions and vital properties are brought into a state of excessive preternatural excitement, which continues for a considerable time after each operation." 108.

II. *Mucous Membranes.* The action of chlorine, our author believes, on the mucous membranes, is somewhat analogous to that which it exercises on the skin. "Thus, when a person is under the influence of this agent, there is an alteration in the quantity and quality of all the secretions which

are performed on these membranes, but more particularly of those of the biliary and salivary glands, and of the urinary and genital organs, &c."

III. Respiration and Circulation. These are increased by exposure to the influence of the chlorine, but whether owing entirely or not to the heat, our author is not able to determine. Its action on the brain and nervous system does not appear to have been clearly ascertained by our author. He is, however, far from limiting the action of chlorine to these its *sensible* effects.

"I am, indeed," says he, "certain that much of its value in chronic disease is owing to an action, which, although most gradual in its operation, finally accomplishes a general and complete change in the organization." 111.

Our author makes many important observations on the utility of this medicine in hepatic diseases in particular; but we shall only allow ourselves to make one short extract more.

"To communicate, in a single sentence, a rule for the regulation of our conduct respecting the employment of chlorine in diseases of the liver, I may remark, that, *in all cases of hepatic disease, which consist in a torpid or wrong action of the secretory powers of the biliary organ, but which are not attended by active inflammation, it will be found an invaluable remedy, and may be boldly used with well-grounded expectations of success.* It is scarcely necessary to make any remarks on the frequency of such states of the liver, and on the numerous anomalous symptoms to which they give rise." 119.

We think we have extracted enough from Mr. Wallace's work to induce the medical officers of public institutions (who have the best means) to give trial to the chlorine vapour bath, in the diseases pointed out by our author. And if it shall answer the expectations here excited, Mr. Wallace will have deserved well of the profession. Till this trial be made, we shall abstain from all further comment on the work before us.

Our limits are so far overstepped, that we can dedicate but a few lines to the second work on our list. Mr. Coyne has long used the nitro-muriatic acid bath, both in India and in this country; he is, therefore, much attached to the remedy. He enters into a defence of the nitro-muriatic acid bath against those who opposed or condemned the measure, (most of them indeed, without giving it any, or at least, a sufficient trial,) and has published several cases, illustrating the beneficial effects resulting from its application. As the Treatise is "not intended solely for the perusal of gentlemen of the medical profession," we shall abstain from any criticism, especially as we are unable to enter, at the same time, into an analysis of the work.

IV.

Recueil de Memoires de Chirurgie, par le BARON D. J. LARREY, Chirurgien en Chef de l'Hôpital de la Garde Royale, &c. &c. &c. Paris, 1821, pp. 319.

It has been frequently and justly observed, that the laws of social benevolence require that every man should endeavour to assist others by his experience.

Notwithstanding the truth of this proposition is generally, nay, perhaps, invariably admitted, it is not uncommon for those, whom nature has blest with talent, and fortune favoured with numerous opportunities of benefiting mankind by the promulgation of their practical experience, to sink into a state of listless apathy during their more leisure hours, without considering it necessary to dedicate a single moment to the fulfilment of what may justly be deemed an imperious moral duty—namely to the improvement of the profession to which they belong. To behold others with frigid indifference, struggling with difficulties which we could teach them to overcome—to witness failure when we could impart the means of success, is certainly, however, not the characteristic of the medical profession. Baron Larrey is a prominent example of unwearied industry, and professional zeal. He no sooner obtains information, than he hastens, in the true spirit of philanthropy, to impart it to his brethren. Since the publication of the last volume of his campaigns, he has been sedulously occupied in collecting additional evidence, upon some subjects which he merely glanced at in that important work. The first memoir in the present volume is upon moxa; its mode of application is pointed out, and various cases are detailed of those diseases, in which its use has been found advantageous. We highly approve of the cautious scrutiny to which the merits of this application have been subjected. It is by far too painful, and too unpleasant a remedy, to be had recourse to upon light authority, or without sufficient proofs of its efficacy. Foreign surgeons, have at length, the Baron observes, recognised the advantages to be derived from moxa, and have adopted the use of it as the best mode of treating several chronic affections which have hitherto been considered incurable, such as diseases of the spine—of the hip joint—phthisis pulmonalis—scirrhus of the pylorus, &c. The inhabitants of Asia and Africa have the highest confidence in the application of this remedy. They use it, not only for the purpose of removing diseases which are incurable by other means, but also to pre-

vent their occurrence. It is not improbable that it has fallen into disrepute in Europe, in consequence of having been improperly and carelessly applied. We refer our readers to the "*Dict. des Sciences Med.*" Art. "Moxibustion," for some interesting details descriptive of the various ways in which it is applied in different countries.

The cone or cylinder of moxa, is composed of cotton rolled upon a small quantity of fine linen, stitched at the edge. It should be about an inch long and of a proportionate thickness. Its size, however, may be varied according to circumstances. A moxa frame, of which an engraving is given, is employed to apply it to the precise spot required. The metallic ring of the moxa frame is insulated from the skin by three small ebony balls. After having lighted the extremity of the cone, combustion is kept up by means of a blow-pipe. Rapid combustion is not desirable.

The spot upon which the moxa is to be applied is first to be marked with ink, the surrounding parts being protected from injury by being covered with pieces of damp linen. To prevent the deep seated inflammation and suppuration which would result, liquor ammoniæ is to be immediately applied, when the combustion of the moxa has been effected. According to some authors moxa may be applied indiscriminately to all parts of the body. Baron Larrey excepts all that part of the cranium which is covered only with the integuments and pericranium. Two cases are related by Dehaen in proof of the danger of applying a cautery to this part. Moxa should not be applied to the eyelids, nose, or ears. It is also necessary in the opinion of the Baron, to avoid the course of the larynx, and trachea, the sternum, the glandular parts of the breasts, the linea alba of the abdomen, and the organs of generation.

It may, however, be applied to the perineum, near the origin of the urethra, for chronic scirrhus affections particularly of the prostate gland. We should also abstain from the application of any kind of cautery over the course of superficial tendons, or near the articulations, where we should incur the danger of injuring the capsules of the joint. The properties of moxa differ from those of the metallic cautery, the effects of which are confined to the burned part, which is more or less disorganized according to the size and thickness of the cautery, and the force with which it is applied.

Moxa is considered much less painful than the metallic cautery, besides which it is said to communicate to the parts "*avec une masse relative de calorique, un principe volatil tres-actif, que fournissent les substances cotonneuses, lorsqu'elles sont en combustion.*"

This we think is rather a fanciful mode of explaining the peculiar advantages of moxa. This "*principe volatil*" furnished by cottony substances whilst burning, must be immensely abundant and active, to be productive of any particular benefit from the combustion of so small a quantity of cotton.

If it is required to obtain merely a superficial effect, the moxa is allowed to burn without making use of the blow-pipe. Baron Percy, our author's colleague, uses it in this manner. The sensation which first arises from the application of moxa, is, we are told, "*plutot une sensation agreable que de la douleur*." That very severe pain quickly follows is not denied; it is borne, however, with fortitude in most cases, as the patient knows, after the first application, that it is *instantly* relieved by liquor ammoniæ. The number of moxas required will depend upon the nature of the disease. One only, or two at most, should be applied at the same time. Several days should intervene between each application.

The good effects of this remedy are, in many cases, increased by the previous application of cupping glasses to the part, with or without scarification.

After these preliminary observations, the Baron enters upon a brief description of cases in which he considers the moxa required. He commences with diseases of the organs of sensation, and, first—

Of Vision. Incipient cataract, or recent paralysis of the optic nerves particularly demand the use of moxa, which should be applied over the course of the nerves most connected with those of the eye, such as the trunk and principal branches of the superior maxillary, and frontal nerves. By the use of moxa, says the Baron, the progress of amaurosis has not only been arrested, but some cases have been completely cured, in which the blindness was complete. An interesting case illustrative of this statement is adduced, and similar instances are related by the author in his "*Memoires Chirurgicales*." We are advised to *second* the effects of moxa by the appropriate remedies, such as previous cupping, the internal use of calomel, electricity, &c.

We are not inclined to attempt even the Herculean task of reconciling the discrepancy of opinion which we have such frequent cause to lament. We should not, however, feel ourselves justified in withholding from our readers the fact, that our able and assiduous friend, Mr. Guthrie, who has extensive practice as an oculist, both public and private, has tried the moxa largely for near six years, and that he has scarcely seen

a single instance in which it has been of permanent utility in amaurosis, or any other disease of the eye. Baron Larrey has derived no benefit from moxa, in affections of the olfactory and gustatory nerves. Deafness and loss of speech arising from the sudden application of cold, &c. have been frequently cured by its employment.

"Paralytic affections of the Muscular System." The effects of moxa in paralytic affections, with or without neuralgia, are next considered. Three cases of severe tic douloureux, of long standing, are related. They had resisted all the usual remedies, and are considered to have been cured by moxa repeatedly applied. It should be observed, however, that in two of these cases, the general health was considerably impaired by the continuance of this distressing malady, and that previous to the use of moxa, the Baron very properly directed his attention to the cure of the constitutional derangement. When we consider the intimate relation that exists between such local affections, and the state of the constitution, we cannot but ascribe a great part of the benefit, to the general treatment so judiciously enforced by our author. The use of moxa "is not indicated in acute neuralgia, arising from spontaneous causes, nor in tetanic affections. It augments the irritation and tetanus. We have employed it to no purpose in the latter disease." An interesting case of disease of the spine is related, accompanied with paralysis, which was cured by thirty-two applications of moxa. In mentioning the previous treatment of this case, the Baron observes in a note "L'essai que j'ai voulu faire de ce remède (la noix vomique) chez quelques-une de nos paralytiques, a produit le même résultat. Il n'est pas douteux que loin de dissiper la phlegmasie des membranes nerveuses, elle ne l'augmente; j'ai remarqué que ses effets sont constamment pernicieux, et je pense, contre l'opinion de quelques médecins qui préconisent cependant ce remède, qu'il est un de ceux dont l'usage doit être proscrire en médecine."

Notwithstanding this sweeping reprobation of the nux vomica, we can declare from our own experience, that it may at least be exhibited without danger. The experiments of Drs. Majendie, Delile, Desportes, and Orfila, prove that the nux vomica exercises a peculiar action upon the spinal marrow. Dr. Fouquier, and M. Bricheteau, considered it as a valuable remedy in paralysis; they have administered it in many cases.* Two cases of paralysis of the fore arm from

* Vide our Journal for October, 1818.

gun-shot wounds, in which the sensibility of the parts was highly increased, were cured by moxa. The torments endured by the subjects of these cases, and the failure of every remedy, made them anxious for amputation; fortunately, however, they submitted to the use of moxa, and it proved completely successful. Hemiplegia of the face, Baron Larrey observes, had hitherto been considered incurable by authors. The application of moxa to this part was thought dangerous and justly so, unless the cones of cotton were used of a small size, and suppuration prevented by the application of armonia.

Several young soldiers of the Imperial Guard, who were attacked with hemiplegia of the face in consequence of bivouacking in damp situations, were cured by moxa. The following interesting case we give in the words of our author.

"Mad. de M. aged 17 years, of a nervous and delicate constitution, had been affected since her infancy, with paralysis of the left side of the face, which took place at the termination of a worm fever. For this, electricity and mineral waters were tried in vain. The deformity was great, and gave to this young woman, who was otherwise handsome, a very disagreeable aspect, especially when she smiled. Baron Larrey applied some moxa cones, at first, along the track of the facial nerve as it passes out of the stylo-mastoid foramen—afterward in three divergent lines, following the course of the principal branches of the same nerve. The pain was great, but the young patient bore it without uttering a word. The application of liquid volatile alkali immediately removed the pain when the moxa was taken off, and the eschars separated on the 10th to the 13th days, leaving very small red cicatrices which disappeared in time. After the fourth application there was a sensible change for the better; but the melioration was very gradual, till the ninth repetition of the moxa, when the amendment was rapid, and by the 17th, the patient might be considered as cured, so trifling were the vestiges of the former deformity." 94.

This is an unquestionable proof of the occasional efficacy of moxa. We fear, however, that few patients would submit to so formidable a mode of treatment, excepting, indeed, a young lady anxious for the restoration of her beauty. It should be observed, that we are advised to prevent suppuration from the use of moxa in simple paralytic affections, unattended by neuralgia, while it is considered beneficial in painful paralysis. Complete success, says the Baron, results from the use of moxa, in cases of paraplegia depending upon affections of the spinal marrow, "*lorsqu'elles ne sont pas très-anciennes, et qu'elles ne sont pas compliquées d'incontinence d'urine, symptôme très-fâcheux.*" We must refer to the work itself for a very striking case of paraplegia in the per

son of a general officer, which was successfully treated by moxa. The Baron next enters upon a rapid sketch of the organic diseases in which moxa has been useful, and to our astonishment commences the chapter in these words. "In all chronic affections of the head, I have employed this remedy with the greatest success. In idiopathic epilepsy, *dropsy of the ventricles of the brain*, chronic cephalalgia, &c. &c. the moxa should be applied all round the basis of the cranium, and particularly at the junction of the squamous suture with the lambdoidal." We pass over the cases of head affections, which are related as proofs of the efficacy of moxa. As such, they are to us extremely unsatisfactory; their nature is problematical, and in each of them copious bleedings, blisters, calomel, the long continued application of ice, &c. were had recourse to previous to the use of moxa, which we conceive to have had little claim to the ultimate recovery of the patients.

By some authors the use of moxa is recommended in mental diseases attended with excitement. The Baron disapproves of the remedy in such cases.

Diseases of the Chest. Asthma, painful palpitations of the heart, and chronic inflammations of the pleura, are said to have been relieved by moxa. That counter-irritation, excited in the ordinary manner, is productive of much benefit in such cases, is an admitted fact, and we are still somewhat skeptical as to the superior efficacy of moxa.

Phthisis pulmonalis is the next disease considered as frequently remediable by moxa. Upon this subject the Baron is brief, as it is his intention to publish a separate treatise upon it, as soon as he has collected sufficient materials. To scrofulous and rheumatic inflammations of the hip joint, &c. &c. the term "phthisis of the bones" is applied, and our author observes, that if attention be paid to the success which has resulted from the use of moxa in such cases we shall be convinced of its efficacy in pulmonary phthisis, which differs from those affections "only in its seat." For our own parts, we certainly should not confidently rely upon a particular mode of treatment in phthisis pulmonalis, because it had been successfully employed in diseases of the vertebræ, or hip joint, &c.

That "the same phenomena are occasionally observed in these affections, the same causes recognised, and the same effects produced," is very true, but surely the result of any mode of treatment will be very materially modified, if not rendered totally different, from the different structure, func-

tions, and importance to the animal economy, of the affected parts. The constant action of the lungs, also, presents a formidable impediment to our curative endeavours, which we have not to encounter in the other diseases mentioned by the author. Abstractedly considered, we might not, perhaps, have objected to the application of the term "Phthisis of the bones;" if, however, it is to be applied for the purpose of leading us on to a confession of the identity of vertebral disease, &c. with pulmonary consumption, with the single exception of the difference of situation, and to the inference, that a similar mode of treatment will, in each case, be productive of similar effects, we decidedly disapprove of it, as being likely to lead to very erroneous analogical reasoning, and inappropriate practice. The Baron incidently remarks, that the superacetate of lead, and more particularly the prussic acid, both of which have been so highly extolled in phthisis pulmonalis, are generally hurtful, or at least useless. In a public institution with which we are acquainted, and in our own more limited private practice, the latter remedy has been given in different stages of phthisis without the least advantage. As it is, of course, desirable to apply the moxa as nearly as possible over the diseased part of the lungs, the stethoscope of Laennec is recommended as facilitating the investigation, although, as our author justly observes, the experienced physician will not require its assistance. Percussion and careful pressure with the fingers between the ribs, will generally suffice to indicate the seat of the disease. We refer to the work itself for some cases of phthisis, in which moxa was employed. Four it would appear were cured, and three died of abdominal disease, having nearly recovered from the pulmonary affection.

Of Chronic and Organic Disease of the Abdominal Viscera. In cases of thickened pylorus, obstructions of the liver, spleen, "*ou de toute autre viscère de la cavité abdominale,*" great success, it is said, has resulted from the use of this favourite remedy, particularly if the disease has not arrived at the last stage of development.

OF RICKETS. Both ancient and modern authors have strongly recommended moxa in rickets. Desault remarks, that the remedy is more certainly successful, if the burned parts are not allowed to suppurate. The ammonia is consequently to be applied, in such cases, immediately after the moxa is consumed.

The repetition of the use of moxa will depend upon the obstinacy of the disease. It may be applied during every

stage, but of course with more probability of success, during the first period, when the deformity has not proceeded to any great extent. The interval between each application of the moxa must depend upon the age and strength of the patient. It is, of course, more advisable that the cure should occupy a longer time, than that the patient should be exposed to the dangers arising from their too rapid application. In "dorsal consumption," to adopt the nomenclature of our author, moxa is "imperiously indicated." This disease, which is better known by the title of curvature of the spine, or the vertebral disease of Pott, has been considered generally incurable. Baron Larrey is of opinion, that abscess invariably results from caries of the vertebræ. We know, however, that such is not invariably the case, we have seen upon dissection caries of the vertebræ without abscess, and we believe that such cases are not uncommon.

Our author observes, that thirty years' experience has verified the principles of Pott, respecting spinal disease, and also put him in possession of a sovereign remedy in the repeated application of moxa, which he considers is infinitely preferable to caustic issues. We must pass over the relation of many interesting cases of spinal disease, in which moxa was advantageously employed.

By the term *sacro-coxalgia*, which is the subject of the next section, is implied in affection similar to the vertebral disease occurring in the sacro-iliac symphysis.

Rheumatism is considered a frequent original cause of this complaint, in which, in young subjects particularly, a separation of spontaneous luxation of the bones results. Caries frequently succeeds. A similar luxation has been known to take place in young females, who have given birth to very large children. To establish a diagnosis in this case is considered difficult; local pains increased upon pressure, with a manifest tumefaction of the sacro-iliac region, will indicate its probable existence. Moxa is considered a useful auxiliary in the treatment of *sacro-coxalgia*.

The sternum and scapulæ are liable to similar attacks of rheumatism, which must be treated in the same manner. "In all these cases, I have observed, says Baron Larrey, that when the abscess, depending upon the caries of the bones, breaks spontaneously, before the caries is arrested by the proper means, that it has terminated fatally, whilst, on the contrary, the early use of moxa, has put a stop to the destruction of the bones, and the abscesses have been opened with success; of this fact I have numerous examples."

Of Femoro-coxalgia, or latent and chronic inflammation

of the hip joint, the Baron has witnessed many instances young soldiers who were much exposed to wet and fatigue. He considers it a rheumatic affection, and observes that it is characterized by the same symptoms, and requires the same mode of treatment, as those strumous diseases of the hip joint which are so common in children.

The lengthening of the limb which takes place in such cases, is attributed to relaxation and paralysis of the muscles surrounding the joint, and also to a relaxed state of the ligamentum teres. The Baron is not aware of, or at least does not mention, the explanation of this occurrence afforded by John Hunter, which we believe to be accurate; namely, that the *apparent* lengthening of the limb arises from the disease of the pelvis becoming lower than the other.

It is the opinion of our author that, "unless from some concomitant mechanical cause, the head of the femur, although previously reduced in its size by caries, is not luxated."² He has never seen a single example of luxation either in adults or children, although he has had frequent opportunities of opening the bodies of those who have died of the disease. It is, however, an undoubted fact, that dislocation of the head of the thigh bone does take place, in consequence of the destruction of the joint. Mechanical violence may, is true, be applied, and produce dislocation. A patient labouring under this disease is, however, but little exposed to such a cause. During the first period of the disease, when inflammation of the joint only is to be combated, local bleeding, &c. is recommended. The subsequent use of moxa, the combustion of which is to be kept up by means of the blow pipe, has been highly successful, even when caries and suppuration had taken place.

Baron Larrey cannot yet venture to determine whether in such cases the use of the actual metallic cautery is required; he is inclined to believe "that it may prove a powerful auxiliary to moxa, which, not acting with equal energy, cannot so rapidly arrest the disease." Eight cases are related in which the moxa was successfully applied. Upon white swelling of the knee, we are promised a distinct treatise: it has been cured by moxa. We are now arrived at the conclusion of the Baron's observations upon moxa.

That it is a valuable remedy we do not doubt, and that some of the cases related prove its *occasional* superiority over the other well-known means of exciting counter-irritation is equally certain. In many of them, however, the most powerful and judicious curative measures were resorted to, previous to the application of this highly extolled remedy, and it would therefore be extremely difficult to determine the precise *quantum* of benefit derived from its use.

The high authority of Baron Larrey will, doubtless, be sufficient to induce the surgeons of this country to give it a fair and careful trial. It has hitherto been applied by few English practitioners. The second memoir is "upon the seat and effects of nostalgia, followed by reflections upon partial lesions of the brain, whether resulting from mechanical or spontaneous causes."

Upon the subject of nostalgia, which has been productive of so many conflicting opinions, the author confines himself to the relation of facts; to the careful description of those phenomena which characterize this singular affection, and to the differences which exist between this and other diseases, which also have their seat in the brain. In nostalgic patients the mental faculties first become deranged. The most enchanting and joyous impressions of the beauties of their native place take possession of their deluded imaginations, however barren it may really be. They conceive their friends and relations to approach them in the richest habiliments, and with the tenderest marks of affection.

This state of excitement is characterized by increased heat of head—rapid pulse—convulsive motions—redness of the conjunctivæ—wandering looks, and precipitate utterance. A state of oppression succeeds, with sighing—costiveness, and wandering pains in different parts of the body.

In the third period there is general debility. The patient is overwhelmed with sorrow; he moans, sheds tears, and loaths his food, and not unusually has a horror of transparent liquids, which gives him an hydrophobic appearance. Life becomes burdensome, and suicide completes the gloomy picture, if paralysis has not deprived the patient of power to execute the deed. The vital energy gradually sinks, and he dies perfectly unconscious of his fate.

It may be easily imagined that during the retreat from Moscow, *nostalgia* was very frequent. We should doubt, indeed, whether there was a single individual in the French army, who would not gladly have yielded all claims to military glory, to have escaped the maddening scenes that must constantly have been presented to his view. Comfortless, indeed, must have been the home, which did not inspire the most ardent wishes for return, when placed in such a situation of complicated sufferings. Who would not then have been nostalgic?

In the first stage of nostalgia, bleeding, purgatives, cold to the head, &c. are indicated. In the second, or stage of collapse, the application of moxa is recommended, with light tonics, and change of climate. In the third period art can offer but little assistance; the efforts of nature may produce a favourable crisis. During the whole course of the disease.

the utmost kindness should be shown to the patient on the part of the attendants. Seven interesting cases of nostalgia are related. Upon dissection of a nostalgic patient, inflammation and suppuration of the brain were the principal morbid appearances.

Upon the Properties of the Iris. The object of this paper is to examine the nature of the sympathetic relation which exists between the iris and retina, or optic nerve. Our author is under an error, in supposing that, "until the present day, it has been admitted, that the contractility of the iris depends upon the influence of the optic nerve, or retina." The reverse has been long known. The functions of the iris may be deranged, while the retina remains sound, and *vice versa*. The sympathy between these parts is so great, however, that it will rarely happen that the retina is diseased without corresponding signs of derangement in the actions of the iris. That the iris may be diseased without the retina participating, is a circumstance of very common occurrence, and shows that the sympathy existing between them is not reciprocal. That the motions of the iris are in fact essentially independent of, although intimately connected with, the retina, has been taught in London for the last six years. Baron Larrey has observed several facts which prove that the immobility of the iris does not contra-indicate the operation for cataract. He remarks that the actions of the iris remain perfectly natural during tetanus, although the whole muscular system is affected by spasm.

Several cases also have fallen under his care, in which, from mechanical violence, the iris was completely paralyzed; vision remaining perfect. At page 236 it is observed that, "in several affections of the viscera, such as chronic inflammation of the heart, pericardium, liver, &c. the opening of the iris gradually contracts itself, until at last the passage of the rays of light is entirely prevented, whilst the visual properties of the retina preserve their integrity, and sight may be restored by the operation for artificial pupil. It is important to determine, whether vision was perfect before the total occlusion of the pupil, for in the case of amaurosis, the operation would be useless."

Upon this passage we must observe that, as far as our observation extends, a gradual obliteration of the pupil results only from inflammation of the iris, and when it occurs in the diseases mentioned by the Baron, it is almost always accompanied by derangement of the retina. Upon this point, then, we differ from our author. We believe that in the cases to which he alludes, which were relieved by operation, the closure of the pupil was an accidental circumstance unconnected with visceral disease.

That such diseases do frequently lead to loss of sight is certain. This lamentable occurrence, however, arises from a real nervous sympathy, not exciting inflammation which is capable of effecting a permanent closure of the pupil, but, on the contrary, causing a moderate but permanent dilatation, and terminating in amaurosis, or glaucoma. We must refer to the work for some speculative opinions upon the cause of the motions of the iris.

A short paper succeeds upon "*Wounds of the Intestines.*"

It appears that the Baron is not aware of the progress which has been made in the treatment of such accidents by English authors, particularly Mr. Travers.

The book concludes with a few remarks upon fractures of the neck of the femur, and with some reflections upon the formation of callus in fractures in general. We reserve any observations upon this subject until we are favoured with a separate treatise upon it, which the Baron promises.

To be useful to his fellow-creatures is the avowed motive of Baron Larrey, for the publication of the present volume, which contains much valuable practical information. We sincerely believe, that no other inducement would more effectually have prompted his exertions. The determined assiduity and professional ardour of the Baron are the more praiseworthy, as to acquire fame cannot be his object. He already stands at the summit of professional reputation. He has in fact reaped the reward which will rarely be withheld from him who possesses talent, and whose conduct is guided by the principle of our great moralist that "to be idle is to be vicious."

P.S. After the foregoing review of Baron Larrey's work had been drawn up by one of the writers for this journal, we received Mr. Dunglison's translation of the whole of that part of the Baron's work which relates to Moxa, preceded by a learned preface, and accompanied with valuable notes by the translator.* We regret that the extent to which our coadjutor has gone in the present analysis of the memoir on moxa, will render it impossible for us to recur to the subject in a review of the translation. We cannot let this opportunity slip, however, without recommending Mr. Dunglison's work to the attention of our brethren, as very creditable to his talents and judgment, and capable of affording them much important and valuable information.—*Ed.*

* On the use of the Moxa, as a Therapeutical Agent. By Baron D. J. Larrey, &c. translated from the French, with notes and introduction, &c. By Robley Dunglison, Fellow of the Royal College of Surgeons, 8vo. pp. 146. and 76 pages of preface, London. 1822.

V.

Cases in Surgery, selected from the Records of the Author's Practice at the St. George's and St. James's Dispensary; and illustrating the Nature and Mode of Treatment of Strumous or Scrofulous Ophthalmia; the sedative Powers of Tartar Emetic in the Cure of Local Inflammations, when administered internally; the Treatment of the Mammary, or Milk Abscess; and the beneficial Effects of Elm Bark as a cheap Substitute for Sarsaparilla. With Two Plates. By HENRY JEFFREYS, Esq. Senior Surgeon to the St. George's and St. James's Dispensary; Assistant Surgeon to the Lock Hospital; and formerly a Surgeon in the Third Regiment of Foot Guards. Octavo, pp. 237. London, 1820.

THE St. George's and St. James's Dispensary has now existed about five years, and has distributed extensive medical relief to the poor of those and the neighbouring parishes. We are sorry to learn, from the publication before us, that the funds of this very useful institution are rather on the decline—a state, we believe, which is participated by most of the dispensaries in this metropolis. There is no good without its attendant evils in this world. The rapid increase of these charitable institutions throughout the great and small towns of this country, has become rather a burthen on the subscribers; and the public begin to perceive, that the majority of them are instituted from private motives, and for selfish purposes, though there can be no doubt that, even so, the good effects are the same, as far as the suffering poor are concerned. We have reason to believe, also, that, with the really necessitous, there is now an afflux of patients to these dispensaries, whose circumstances might fairly enable them to employ the humble and junior classes of general practitioners—who accordingly suffer materially, not only in a pecuniary point of view, but in the circumscription of their proper field of observation and experience. Thus, while the *few* medical officers attached to these institutions shall profit by the extensive field of practice laid open to them, the *many* young men just entering on their professional career, will be absolutely cut off from all sources of observation, excepting among the better classes, very few of whom will employ them at this early period of their lives. Here is a very serious evil: and it is extremely problematical if even the medical officers themselves derive so much advantage, pecuniary or practical, as is generally supposed. In a pecuniary point of view, we

have the very best means of knowing that these institutions have fallen far short, indeed, of their expected influence in leading to private practice; and when we contemplate the contrast between the constitutions, habits, accommodations, &c. of the poor and the affluent, we must be convinced that the medical practice in these two classes is widely different. Still, with all these draw-backs, the institutions in question have opened excellent sources of observation for their medical officers, and the profession at large has been greatly benefited, from time to time, by the results of these observations.

The volume before us makes very humble pretensions, aspiring no farther than to convey some plain practical information to the junior classes of the profession, on subjects which but rarely come under the student's observation during his attendance as a pupil at public hospitals. This is the kind of information, by the way, which is most useful; though both young and old will hunt after rare cases and extraordinary operations, which they may never again meet with in the course of an extensive practice.

The first paper in this work is a long one on the nature and treatment of scrofulous ophthalmia, and contains many judicious observations. It is not necessary for us to dwell on it here in very minute detail, but merely exhibit a brief sketch of its contents. Mr. J. first mentions *tinea ciliaris* and *lippitudo*, two affections which are frequent attendants on strumous ophthalmia, though often independent of that disease. The *first* of these shows itself in the form of small pimples or pustules along the roots of the eye-lashes, which break and exude a puriform fluid that glues the edges of the lids together, often, in aggravated cases, occasioning the eye-lashes to drop out, and sometimes destroying them altogether, leaving small ulcers, and a morbidly sensible state of the eye. In *lippitudo* the cartilaginous edges of the eyelids are red and excoriated, and it depends on a morbid condition of the meibomian glands, the secretion from which is morbidly increased and glutinous. This and *tinea ciliaris* are frequently mistaken for each other, and, indeed, they are often conjoined.

The treatment of both these complaints consists of alterative and tonic medicines, occasional mercurial purgatives, mild but nourishing diet, pure and dry atmosphere. These last are easily recommended, but how are they to be obtained by the poor of London, to whom the complaints in question are almost entirely confined? The topical applications are solutions of sulph. zinci, cupri, &c. while the edges of the lids should be touched at bed-time with the ung. hyd. nitrat. or some such ointment.

Of strumous ophthalmia the tunica conjunctiva is the principal seat. Mr. J. divides it into acute and chronic. It seldom attacks infants at the breast; but from the time they are weaned, "it is perhaps the most common of the eye to which young children are subject, and often presents the first indication of a strumous system. When neglected it becomes a frightful source of debility to vision by the specks and opacities which it leaves upon the cornea. In the acute form the great impatience of the eye to the light is one of the peculiar characteristics of the strumous ophthalmia.

"Around the circumference of the cornea an effusion occasionally takes place from the inflamed vessels, elevating the conjunctiva into a circular vesication about half a line in breadth, frequently occupying the entire margin of the cornea and exhibiting a peculiar reddish brown appearance. In this symptom, there may often be seen clusters of miliary pustules, occupying the same line, or scattered separately upon the cornea and conjunctiva. These pustules vary in size according to the part of the conjunctiva on which they appear, being commonly smallest upon the cornea, and increasing in size towards the angle where that membrane is reflected upon the internal superficies of the lids; and may be considered a distinguishing symptom of this disease. In mild cases the vesicle contains a serous fluid: but where the inflammation is of a more violent character, they become filled with coagulable lymph, and, in still severer cases, with pus." 16.

If the inflammatory action runs high, or is not checked by proper means, the pustules are apt to break, and form a chancre which constitutes the most formidable symptom of the complaint. The pain is greatly increased, owing to the pressure made upon the ulcers, the intolerance of light becomes excessive, and the inflammation is often augmented. In some cases the ulcer may spread, either by the formation of successive sloughs, and, if not checked, may eventually destroy the substance of the cornea, and lay the anterior open, which event is followed by the discharge of aqueous humour, and protrusion of the iris.

When the phlogosis is milder, instead of the ulcer being covered by slough, lymph becomes effused on its surface, and a halo of transparent appearance is formed round the ulcer, which is a favourable circumstance, and should not be interfered with.

When the acute form does not terminate in speedy healing of the ulcers, it becomes converted into a chronic state—a form the most usually met with, arising from the acute chiefly in duration, and the

active inflammation, the vessels of the conjunctiva remaining in a state of passive congestion and gorged with red blood. There is, however, the same distressing intolerantia lucis, profuse lachrymation, ulcers covered with effused lymph, and remaining in an indolent state.

In the treatment of strumous ophthalmia the first indication, of course, is to relieve the local disease—and that **must** be done by a mild antiphlogistic course. Local blood-letting he did not always find necessary, and he thinks general bleeding can hardly ever be required. "Where the inflammatory action runs higher than ordinary, or where it has been suddenly and violently augmented by the formation of ulcers in the cornea; or where a rapid and extensive effusion of lymph is taking place, the increased impetus of the vessels, should be moderated by the application of leeches to the under eye-lids." It will seldom, he observes, be necessary to repeat this operation. Emetics and purgatives, darkness, and regulated diet, are, of course, powerful items in the *methodus medendi*—especially as in most children, among the lower classes, who labour under this disease, we observe tumid abdomens, and disordered abdominal secretions. Here the exhibition of an emetic, (a measure too much neglected in modern times,) followed by a purgative, will be of great benefit. "The best purge is calomel combined with scammony, jalap, or rhubarb, administered at intervals of two or three days." In recent attacks of the acute form, the inflammation, pain, and irritation may be moderated by gently astringent evaporating lotions, applied either warm or cold, according to the feelings, ("or prejudices," Mr. J. says,) of the patient. We have found no application more grateful to inflamed and irritable eyes than decoction of poppies, with a considerable quantity of extract of conium dissolved in it—say half an ounce of the extract in a quart of fomentation. This should be applied warm five or six times a day.

Mr. Jeffreys' further observations on the general treatment of the acute and chronic forms, contain only common and well-known directions. In respect to certain parts of the local management, he observes that the pustules which form in this disease, should never be opened by art, as they are then more liable to degenerate into ulcers—the most formidable and distressing symptom of the disease. The severity of the pain should be relieved by leeches to the under eye-lid, assisted by a brisk mercurial purge, and the eye kept wet and secured from light. When the ulcer has pierced the cornea, and the iris lies protruded, the ulcer should be touched every other day with a bit of argenti

nitras scraped to a point; or a solution of the same (two or three grains to an ounce of water) may be injected over the eye twice or thrice a day. If the prolapsed portion of iris remain protruded beyond the level of the conjunctiva, it must be destroyed by caustic, or snipped off with scissors.

The second paper in the work before us is on the sedative powers of tartar emetic in local inflammations. Both Dr. Balfour and Mr. Jeffreys have underrated the extent to which this medicine has been used in medical and surgical practice by their brethren at large. For the last thirty years, to our knowledge, there is scarcely a form of inflammation, or indeed of febrile excitement, in which all ranks of the profession have not been in the habit of prescribing antimonials, and generally the tartrate, as a controller of vascular action. Mr. Jeffreys, we imagine, is not justified in saying that, "of late years, it (tartar emetic) has seldom been directed but as an emetic or diaphoretic." Now we are quite confident, that, in nine cases out of ten, where it is prescribed by modern practitioners, it is with the view of *lessening the activity of the circulation*, whether that be by increasing the cutaneous and various other secretions, by causing nausea at the stomach, or by any direct sedative effect which it may have on the circulating organs.

Our author states, that when he first read Dr. Balfour's work, he could not bring himself to give full evidence to all his assertions respecting the powers of tartar emetic; but, on putting the medicine to the test of experience at the dispensary, "the result far surpassed any expectations that he could have formed of it, and has been sufficient to satisfy his mind that its sedative powers are such, as not only to reduce very considerably the necessity of general and local blood-letting, in a great variety of topical inflammations, but, in many, to supersede it altogether." This we believe, and therefore, at charitable institutions, where economy is a cardinal virtue, and where the palates of patients are not quite so delicate as their purses, the medicine in question may prove a valuable succedaneum for leeches and other modes of sanguineous depletion. The diseases in which our author has administered the medicine were strictly surgical, and the mode of its exhibition was that recommended by Dr. Balfour, viz. two, or three, or four grains dissolved, with an ounce of Epsom salts, in six or eight ounces of water, of which mixture the patient is to take two or three table-spoonfuls every half hour or oftener, until vomiting is excited: after which, the dose is to be repeated at intervals of three, four, or six hours, according to circumstances.

"Exhibited in the manner I have described, this medicine ap^d

pears to exercise a very powerful influence over the arterial system, restraining its action, and diminishing its vigour in a manner, and with a rapidity, that is possessed by few other remedies, that I am acquainted with. In many cases the velocity and the strength of the pulse yield to it in a few hours; the tumefaction, pain, and inflammation of the part affected subside, almost, as by a miracle; the febrile excitement, thirst, and restlessness, which accompany and mark the symptomatic fever arising from local inflammation, are relieved and disappear with the same rapidity. And in none of the cases in which I have directed it, and among them have been some delicate and weakly women, have I met with any complaints of its violent action, nor any objections to its continued use. In other instances these effects are more slow in taking place; but in none, in which I have tried it, has it failed to moderate the inflammatory action, and very considerably to reduce the necessity of general and local blood-letting." 96.

A great number of cases of local inflammation treated by tartar emetic are related in illustration of the foregoing remarks, for which we must refer to the work itself.

The third paper contains a needlessly minute journal of a fatal case of stricture and ulceration of the œsophagus, together with the appearances on dissection. The patient was 61 years of age, and during the eight preceding years, had been subject to cough and expectoration of phlegm each winter, which symptoms disappeared in the summer. About six weeks before the date of application, the patient began to feel an uneasiness in his throat, and a difficulty in swallowing his food, which gradually increased, accompanied with pain in the stomach, and emaciation. Besides the difficulty of deglutition, there was also a sensation of much uneasiness about the lower part of the œsophagus, with soreness and distention of stomach, which was generally relieved by large eructations. There was constriction about the root of the tongue, and pain stretching up the throat into the ears and behind the angles of the lower jaw, aggravated by blowing the nose or sneezing. Bougies, plain and armed, were long tried and with little or no success—indeed we cannot help thinking that the caustic bougies did more harm than good, although they sometimes appeared to lessen the irritability of the parts at the time. He was under treatment from the 14th May, till the 5th November, 1818, when he terminated a wretched and most painful state of existence.

We think that, under such desperate circumstances as the patient was placed in, and where the stricture was clearly proved to be just opposite the cricoid cartilage, an operation might have been perfectly justifiable. If a man can live for years with a canula in the trachea, why should he not be

capable of living with one in the œsophagus? As for cutting down upon the œsophagus and opening into that passage, the dexterity of a Cooper, and of many other surgeons, would easily accomplish such a task, with little risk of life to the patient.

Dissection. The body was exceedingly emaciated. The œsophagus being slit open, presented the following appearances.

"At that part which lies immediately behind the cricoid cartilage, the area of the canal was nearly obliterated, by a morbid thickening and induration of its coats, for the space of a quarter of an inch or more. The internal membrane was here much thicker and firmer than usual, and, for the space of an inch above and below the contraction, it was ulcerated throughout its whole superficies. The surface of the ulcer was covered with a soft, flocculent kind of slough, of a pale straw colour; and its edges were jagged, abrupt, and irregular. The glands at the root of the tongue were very large and prominent. The epiglottis appeared to be larger, and the glottis to gape wider than usual. Below the ulcer the internal membrane of the œsophagus was redder and more vascular than ordinary,* but did not exhibit any other morbid appearance. The stomach was exceedingly contracted and quite empty; its villous coat was thrown into numerous rugæ; it had a reddish brown colour, and was smeared over with a quantity of yellowish green viscid mucus. Both the larger and smaller intestines were contracted into fleshy chords not thicker than the middle finger. The smaller intestines presented no morbid appearance, and contained nothing but bile and mucus." 147.

The mucous membrane of the colon was of a dark colour, but the rest of the viscera were healthy.

We have had a considerable number of cases of this kind under our care, but none of them proved fatal during our attendance. We kept a drain on the surface opposite the strictured part, and persevered with the common bougie twice a week or seldomer if the irritability was great.

The fourth essay on the treatment of mammary or milk abscess contains nothing new or particular. Mr. Jeffreys thinks that when the abscess bursts and discharges the slough or core, the breast is too much neglected by practitioners in general, and the consequence is, that indurations and inequalities of the breast remain, which prove a source of alarm, if not actual mischief, afterward.

"I think the objects in view may be better and more expediti-

* "This appearance went off after the parts had been in maceration previous to their being put into spirits"

ously obtained by a mode of proceeding which I have long made use of, and which is very simple and easy, being merely the application of stripes of linen, or calico, spread with equal parts of the soap and adhesive plasters, in such a manner as to envelope and support the whole breast. Each stripe of this plaster should be nearly an inch and a half wide, and long enough to reach from a little below the clavicle to two inches below the breast. They should be applied from below upwards, beginning alternately on the outer and inner circumferences of the breast, and so continued till the whole of it be enveloped. Each succeeding stripe should cover the upper half of the one upon which it is placed, and should be so applied as to make a uniform but moderate pressure upon the whole breast. If there be but one ulcer, or opening, the application of the plasters may be so managed, that the last one or two shall be placed over the ulcer. By this means it will not be necessary to renew the whole of the plasters at each dressing; it being sufficient, in general, merely to remove those covering the sore, in order to give vent to any accumulated matter, and to clean the ulcer. The surface of the sore may be covered with a bit of lint; and, if the granulations should be exuberant, they may be kept down by a solution of the nitrate of silver, or the camphorated vitriolic lotion of Bates." 158.

The paper succeeding the above, contains a case of ill-conditioned ulcer on the ala nasi, of three years standing, successfully treated. Ulcers on the nose resembling lupus and noli me tangere are not very unfrequently met with, and sometimes prove very baffling under the best modes of treatment.

Sarah Chambers, 18 years of age, of scrofulous diathesis, came under our author's care on the 22d of March, 1819. She stated, that three years previously an angry pimple on the ala nasi spread, in a few days, into a painful, irritable, and superficial ulcer, which never exceeded the size of a shilling, yet never had healed, though she had been under several eminent surgeons. During the preceding summer she had been at Margate, where, in addition to the nasal sore, she became affected with ulceration in the throat, and painful and difficult deglutition, which still continued, sometimes better and sometimes worse. Although her general health did not seem much deteriorated, she had lost flesh, had a muddy complexion, irregular bowels, and catamenia. An issue had been made in her arm a month before, since which, she thought the ulcer less irritable. At the time of admission the ulcer was larger than a sixpence, nearly circular in shape, its surface slightly elevated above the surrounding integuments, and covered with large, smooth, shining granulations, its edges bordered with thin red cuticle. The tonsils were enlarged and prominent. with an ulcer on the left

one, covered with a thick white slough. She had a furred tongue, and a full, hard abdomen. She was ordered rhubarb and the blue pill to regulate the bowels, and a pint of the decoctum ulmi compositum, (hereafter to be noticed,) to drink daily. By the 6th April, the ulcer on the tonsil was healed, but that on the nose was rather worse. An eighth of a grain of the oxymuriate of mercury was given night and morning, and a lotion applied to the sore, composed of opium, conium, and sulphate of zinc. Under a pretty long course of this her health improved, her bowels were rendered regular and natural, and the nasal ulcer completely healed. We cannot but suspect that, in this case, there was a syphilitic taint in the system.

A case of ulcer, of particular character, on the tongue, is next detailed by our author. The kind of ulcer, in question, is not very frequently met with. It is situated the middle and towards the posterior part of the tongue, commencing in the form of a pimple, which soon becomes a deep, irregular, fissured ulceration, with hard elevated edges, and surrounded, for half an inch, or more, by an induration of the muscular substance of the organ. It takes place in constitutions somewhat out of order, and appears to yield more readily to mercury than to any other remedy. When the ulcer heals, the loss of substance is not restored, and a hardened depression remains.

Case. Thomas Williams, 40 years of age, came under our author's care on the 25th November, 1817, for an ulcer on his tongue, of an irregular shape, deep, and fissured. Its surface was covered with a whitish, thick, adhesive matter, the edges being elevated, hard, and irregular, and surrounded by a circumscribed induration of the lingual substance. The ulcer was a little sore during the day; but, towards night, became dry and painful. His voice was somewhat impaired and hoarse, and he complained of slight pain and huskiness in the throat, but without ulcer or inflammation there. His bowels were confined, and he looked much out of health. He stated, that he had been suffering, for some years, from occasional attacks of hæmoptysis and pectoral complaints; but that his present ailment had arisen about three weeks before, in the form of a pimple which soon went into ulceration. He had had a venereal complaint about ten years ago; but was now a married man with several children.

“ He was desired to take a pint of Compound Decoction of Sarsaparilla, daily; to keep the bowels regular, by means of pills, consisting each of three grains of the *Pilul. Hydrargyri*, and three of *Ext. Colocynth. Co.* and to touch the ulcer twice or three times

a day with the Linimentum *Æruginis*. This application occasioned a good deal of pain in the ulcer, shooting into the throat, and behind the ears." 191.

At the end of ten days, a part of the slough had separated from the posterior part of the ulcer, but anteriorly, the sore appeared disposed to spread. His health, however, was improving. The ulcer was now touched once a day with a weak solution of nitrate of silver. Towards the end of December the remainder of the slough had separated, but the ulcer continued deep and fissured, without disposition to granulate. The decoctum *sarsæ* was left off, and the patient was put on a course of the liquor *arsenicalis*. This medicine excited such pain and sickness at stomach, with faintness, cold clammy sweats, &c. that it was necessary to discontinue it. The patient was now directed to take an eighth of a grain, night and morning, of the oxymuriate of mercury, and to continue the caustic solution.

"In a few days the surrounding induration began to disperse; he had less pain in the ulcer, and it put on a more favourable appearance; but did not granulate. When he had taken the pills about fourteen days, his mouth and gums became affected; he had an increased flow of saliva, and complained of shortness of breath and cough. On this account the pills were omitted for a few days, till these symptoms went off, when they were resumed, but at bedtime only. Towards the end of January new cuticle began to descend the sides of the ulcer; and on the 3d of February its surface was entirely skinned over, the surrounding induration was nearly gone, and he was free from pain. Nevertheless, a deep indurated hollow remained where the ulcer had been; and his voice did not perfectly recover its natural tone and power." 192.

He was discharged cured on the 19th of February, and has remained well ever since.

The volume concludes with the narration of several cases illustrating the beneficial effects of elm bark, as a cheap substitute for *sarsaparilla*. The high price of the latter medicine renders it, of course, inaccessible to the poor; and few dispensaries can afford to exhibit it, to any extent, to the applicants for relief. A cheap substitute, therefore, is a desideratum, and further experience must decide on the pretensions of the elm bark. Our author, indeed, does not rank this homely production with the costly foreign article, but he avers that, prepared as he directs, it is possessed of more medicinal virtues than have generally been attributed to it. The good effects of elm bark in cutaneous diseases have been extolled by several writers, particularly the late Dr. Lettsom, and Dr. Daniel Lysons, of the Gloucester Infirmary. Mr.

Jeffreys has given it an extensive trial at the dispensary, and speaks highly of its virtues. The following is the formula.

“DECOCTUM ULMI COMPOSITUM.

“R. Decocti Ulmi (P. L.) ferventis oc. v.
Sassafras Radicis Concisæ,
Guaiaei Ligni Rasi, sing. ʒj;
Mezer. Rad. Corticis ʒiij;
Glycyrrhizæ Rad. Contusæ ʒj.

Decoque per horam, sepone, et cola.

“This decoction, when properly prepared, and strained, is of a clear brown colour, not unpleasant in its taste, and contains a considerable proportion of amylaceous and mucilaginous matter. Administered in the quantity of a pint a day, it appears to induce insensible perspiration, to restore the appetite, improve the powers of the digestive organs, to strengthen and invigorate the vascular system, and to cheer and compose the animal spirits. In decoctions of the woods in general, its action may be said to be nutritive and tonic; and its use may be persisted in for a considerable length of time, without overloading and oppressing the stomach, and producing any other unpleasant symptom. Its action on the bowels has, in general, a tendency to produce constipation rather than otherwise.” 198.

Our author has administered this decoction, both alone and in conjunction with other medicines, as antimonial potassæ, liquor arsenicalis, oxymuriate of mercury, the mineral acids, &c., in a considerable number of cases. The complaints in which he has found it most serviceable were those which very frequently follow venereal ulcers on the penis, when mercury has been improperly or inefficiently exhibited, as nodes, and painful tumefactions of periosteum and ligaments, ozæna, cutaneous disœdations, foul and untractable scrofulous abscesses, chronic rheumatism, morbid enlargements and induration of the testicles, &c. For the numerous cases in illustration we must refer to the work itself.

Mr. Jeffreys' volume has not been ushered into the world with any pretension or claim beyond that of recording facts which daily meet the eye of the surgeon in dispensary practice, and which form the most useful species of evidence for the young practitioner. We wish every medical officer of a public institution would follow Mr. Jeffreys' example.

VI.

The Seats and Causes of Diseases investigated by Anatomy ; containing a great Variety of Dissections, and accompanied with Remarks. By JOHN BAPTIST MORGAGNI, Chief Professor of Anatomy, and President of the University at Padua. Abridged and elucidated with copious Notes, by WILLIAM COOKE, Member of the Royal College of Surgeons, London ; and one of the Secretaries to the Hunterian Society. In two volumes, 8vo. pp. 577 and 693. London, 1822.

THE original work of Morgagni has been oftener quoted than read—and this translation of it will be oftener read than quoted. It is very easy to account for this. Those who write, and have occasion to refer to Morgagni's collection, will prefer the original, were it only for the look of the thing ; while those who read, for the sake of storing their minds with useful facts, or assisting their judgment in private practice, will take the shorter route of a condensed translation, as sufficiently accurate and comprehensive for their purposes. There were several circumstances that rendered the original work, and even Alexander's translation of it almost unknown (except by name) to the great body of the profession. The size alone was an insuperable obstacle. Not one medical man now in a thousand has nerve to encounter *three huge quartos*, on any subject, or in any language. The taste for research, too, among the records of the past, is daily declining—even among those who have time for such explorations. The multiplicity of modern productions renders it extremely difficult for the practitioner to keep pace with the ever toiling press—and to rake up the rubbish of antiquated lore for the chance of finding a few valuables, is quite out of the question. Indeed, when these selectæ are brought forward by a few learned and industrious men, they are too often neglected, and the collector laughed at for his pains. No wonder then, that under such encouragement from the public, authors should now-a-days content themselves with the relation of single histories, or the statement of insulated facts, hardly venturing even to draw a conclusion, lest they should be stigmatized as theorists.

In respect to Morgagni's work, it is an immense magazine of facts, (some true and perhaps many false,) diluted, in most instances, by unnecessary verbiage, and disfigured, in many places, by antiquated doctrines, both of pathology and physiology. A separation therefore of the facts from the ex-

traneous matters surrounding them, is desirable in itself likely to suit the taste of the times. In the second volume of the *Medico-Chirurgical Journal* for the concluding months of the year 1816, we translated and condensed the first five epistles of Morgagni upon the same plan precisely as the present work is constructed;* and to the then limited number of our subscribers the project gave very general satisfaction. Circumstances, which it is unnecessary to detail, occurred, which arrested our progress, and we are glad to see our plan acted on and completed by Mr. Cooke, though he has not made any allusion to our priority in the field.

Viewing the original work, then, as a collection of cases, we consider the arrangement as of very subordinate consequence. Mr. Cooke has deviated from the order of the original; but whether with advantage or not, we cannot say, and do not think it necessary to inquire. We are glad to observe that Mr. Cooke has corrected several errors into which Dr. Alexander had fallen—an example which occurs in one of the first cases translated by the latter gentleman, viz. *cardinal sanvitalis*, where Dr. A. has *convulsive motions of the hands and feet*, for *convulsive motions of the hands and face*:—"convulsivis motibus facie et manibus."

In respect to the propriety of appending notes, we are rather disposed to think that they would have been better omitted. We acknowledge that we proceeded, as far as went, on the same plan as Mr. Cooke; but were we to go over the same ground again, we should prefer condensing the whole into one volume by means of small type, to swelling out the work into two volumes by open space, large type, and notes. The circulation of the work would thus have been increased five-fold. By this observation we do not mean to undervalue the appended matter, but to query the policy of the measure. It will be for Mr. Cooke to take this into consideration in a subsequent edition, where we have no doubt will soon be called for, notwithstanding the disinclination of readers in general, of the present time, to try back into the archives of former times.

A publication of this description bids defiance to regular analysis, being itself, in fact, an analytical digest of a voluminous production. We shall, however, select a group of cases from certain divisions of the work as to prove at once, interesting in themselves, and indicative of the nature and execution of the whole performance.

* See Vol. II. pp. 169—254—430—512.

Before entering on our labours, we may be permitted to state a few biographical particulars respecting the illustrious dead. Morgagni was born at Forlì in Italy, in February 1682, and studied medicine with great ardour at Bologna, under Valsalva and Albertini. He afterward visited Venice and Padua. In the latter university he became chief Anatomical Professor in the year 1715, and thenceforth, till the close of a long life, deservedly ranked at the head of the anatomists of his time. Literary honours were, of course, accumulated on his head, and he was visited by all the literati who came into his neighbourhood. He married a lady of noble family, and had fifteen children, eight of whom survived him. He was of a robust habit, tall, and of a lively and agreeable countenance. His other virtues were also enchaned by his great modesty. He died about the end of 1771, at the advanced age of ninety, but in the possession of his mental faculties. He was the friend and contemporary of the celebrated Lancisi, Vallisneri, and Valsalva. His great work, the "*Adversaria Anatomica*," was published in parts, between the year 1706 and 1719, and extended its author's fame all over Europe. The present work, "*De Sedibus et Causis Morborum*," did not appear till the year 1760, when the author had nearly attained his 80th year. In 1769 Dr. Alexander published a translation in three quarto volumes, which, from their bulkiness chiefly, have been confined to the libraries of a very few, comparatively speaking. The circulation of the original was also very confined. The great fault (and a most important one it is) in Morgagni's work is the defective history of each case. In the majority of instances there is nothing that can be called a history of the disease prior to death, and in those that are more detailed, the symptomatology is extremely imperfect, and the effects of remedies, or modes of treatment, are but seldom adverted to. Yet, after every deduction, we are disposed to agree in sentiment with our own illustrious pathologist and physician, Dr. Baillie, that "when considered in all its parts it would be difficult to bestow upon it too high praise." But we must now proceed to the more direct objects of our labours.

The first five or six sections of the work will not detain us long, since they are on diseases of the membranes and substance of the brain, particularly apoplexy—affections which have lately occupied much of this Journal, and which have been investigated by modern pathologists in a manner far more accurate and satisfactory than Morgagni could lay claim to. We shall here, however, condense a case from Valsalva, which is not uninteresting.

"A woman, 70 years of age, had for many months felt a gradual decay of memory, and also of vision, when objects were placed in a certain position. When walking, she scarcely raised her feet from the ground. She had been seized, about twelve months previously, with a disorder in the head, from which she speedily recovered; but now she fell down suddenly, while eating, with hemiplegia of the left side, and paralysis of the right arm. Her respiration was perfectly natural, as was also the colour of her face, which, in her, was pale; nor did any convulsions appear. Her head fell, like that of a corpse, into any position to which it was thrown. She exhibited no sense of understanding or feeling, except a slight degree of motion when an incision was made into the jugular vein. She died in nine hours. Both ventricles of the brain were filled with fluid blood; the right, much eroded, as well about the external margin of the corpus striatum as of the thalamus nervi optici. The plexus choroidæ could scarcely be observed. The other parts were sound."

This case shows us how difficult is to form a diagnosis between sanguineous and serous apoplexy! The septuagenary age of the woman—the pallid countenance—and the perfectly natural state of the respiration, were little indicative of both ventricles being filled with blood; and even in these *phlebotomising* days, would pretty certainly doom the man to an imputation of madness who took the lancet in his hand on such an occasion.

Yet does the acute Morgagni sanction venesection in these cases, and asserts that he saved the life of a relation of his, a nun, of 80 years, more than once, by bleeding and other evacuations, when she was attacked with apoplexy, regardless of the age, and only looking to the symptoms.

We shall introduce but one more case of apoplexy.

"Anthony Tita, author of the '*Catalogus Plantarum*,' died suddenly at Padua, in May 1729. The weather was then very hot after long-continued rains and cold; and numbers of people were swept away with only a few hours' notice. Tita was 73 years of age, still robust and brawny; square figure, and somewhat fat. He was in the habit of exposing himself much to the sun; and to drink pretty freely, though not to drunkenness, of undiluted wines. He had been troubled, for some years, with ophthalmic inflammation and lately complained of *fulness in his head*. On the 4th of May the sun being unusually hot, having spent the whole day in the open air, and supped in the evening as usual, he suddenly cried out that he was very ill, lost the use of his tongue, and became hemiplegic on the left side. Morgagni immediately visited him. His senses were perfect; colour, respiration, and temperature, natural; pulse full and strong; complained of no pain, but seemed drowsy. Venesection from the *right* arm was performed; a smart purging glyster administered, and ol. succini applied to the olfactories. Morgagni having retired, one of Tita's own physicians came in, and though

proper to give the patient an emetic ; soon after the operation of which, a still more violent attack was experienced, with stertor and convulsions, which ended next morning in death.

“ *Sectio Cadaveris.* The dura mater adhered firmly to the skull. Its vessels (excepting the sup. long. sinus) were black from turgidity. Vessels of pia mater turgid also. Right lateral ventricle distended with blood of a black, coagulated appearance, and sufficient to fill the shell of a hen's egg. In the three other ventricles, there was fluid blood mixed with serum. The brain was sound and the substance of the hemispheres entire, so that it did not appear from whence the blood and serum could have issued. Towards the posterior part of each lateral ventricle, especially of the right, the plexus choroides had vesicles, the size of large grapes, full of water.”

The propriety of exhibiting emetics in sanguineous apoplexy has occasioned much discussion, and even bitter and disgraceful litigation. That the *straining* during vomiting drives the blood with increased impetus through the arterial and capillary system to all parts of the body, and the head in particular, is most indubitable. This is evinced by the redness and swelling of the face, and accelerated velocity with which blood will flow from an orifice in a vein during the action of vomiting, as we have lately seen in some remarkable instances. It is stated, however, as the opinion of Dr. Parr, in the Lond. Med. Dict. that it is doubtful “whether, in every hæmorrhage, vomiting is not as useful, *by deriving to the surface*, as injurious from any other effect.” We would just observe on this passage, that in deriving blood to the surface from the interior, it *must* be driven through the capillary system into the veins, and consequently its course must be accelerated through the bleeding vessels, *wherever they are situated*. Surely then, to unload the vascular system itself, and particularly the vessels of the brain, by blood-letting, while determinations of blood to all, or any other parts, are solicited by those means which do not quicken, or much disturb, the general circulation, as purging, blistering, sinapisms, &c. are preferable to the hazardous experiment of vomiting, and its usual concomitant, straining. How often do we see apoplexy brought on by stooping to buckle the shoe, lifting a heavy weight, straining to evacuate a costive stool, &c. ? in all which the blood is driven violently to the head through the arteries, while its return through the veins from thence is greatly impeded.

It could not escape the experienced eye of Morgagni, that apoplexy might occur from *turgescence* alone of the cerebral vessels, without any rupture of their coats, or exhalation of blood from their capillary terminations. Accordingly, he has related many examples of this kind of apoplexy, one of

which we quoted in the first number of this series, page 9. These kinds of apoplexy, indeed, are the most dangerous and the most suddenly fatal of all, since the compression on the sensorium is universal. It appears to us that, in such cases, rupture or effusion (whether sanguineous or serous) procrastinates, and often saves the life of the patient. They are but partial evils, and to a certain extent, and in certain portions of the brain, are compatible with life; but general compression, to a certain degree, on the cerebrum and cerebellum, extinguishes the vital functions very quickly.

We may probably, in this way, account for the number of sudden deaths, in the night, which we continually hear of. A *gourmand*, whose vascular system is highly plethoric from immoderate eating and little exercise, goes to bed after a *hearty supper*, and falls asleep. The loaded stomach now presses on the descending aorta, and a disproportion of blood is thrown through the carotids and vertebrales to the brain. If the vessels give way, and either blood or water be poured out, apoplexy takes place, and the family are roused by the struggles or stertor of the patient. But if the vessels are too firm, then a general compression of the *whole* sensorium extinguishes the vital spark in a few minutes, and the man, who went to sleep in perfect health, is found, by his astonished friends, a cold and lifeless corpse in the morning!

At page 51 of Mr. Cooke's Abridgment, Mr. C. observes, that his own experience does not confirm the opinion of a relationship between hypertrophy of the heart and apoplexy. That relationship, however, has now been proved by so many pathologists, that the opinion and experience of an individual can have little weight in the other scale. Our own observations corroborate the more general opinion, and the three last and consecutive dissections which we have made, or been present at, of apoplexy, all displayed active dilatation of the left ventricle of the heart. Mr. Cooke subsequently observes thus: "In common with others, I have found the heart enlarged; and, whenever it acts with impetuosity, as is not unfrequently the case under these circumstances, it cannot be questioned, that the hazard of an apoplectic attack will be proportionately increased." So far, we think, Mr. Cooke's experience *does* corroborate the relationship above mentioned. We extract the following note of the translator, as containing judicious observations.

"Whatever tends to excite unnatural impetus of circulation; or to occasion undue determination of blood to the head, as appears to happen from protracted mental exercises, and from other affections of the nervous system, will have a tendency to induce a state of cerebral turgescence. Although not an advocate of the *exclusive*

agency of the digestive organs in the production of disease, I believe that derangement in their functions will often occasion the state of the nervous system here alluded to. At first perhaps the affection of the head is scarcely perceptible—the mind is dejected—the temper irascible—the head at length begins to ache, and the arteries to throb—an unexpected though slight concussion of the body seems to shake and distress the encephalon—there is frequent vertigo—and unless the disease be counteracted, apoplexy will not be an improbable consequence. I have known several cases of this nature, which bleeding, though temporarily mitigating the disorder, and removing from time to time the imminently threatening symptoms, did not cure, or even permanently relieve. Occasional blood-letting will perhaps be necessary, but it must be combined with assiduous attention to the secretions and excretions of the digestive organs, and to the quality and quantity of the ingesta." 52.

Although Morgagni does not rank himself among those who "when they find a little water within the skull of an apoplectic person, immediately conclude that this was the cause of the disorder," yet he believes, there is sufficient reason for the division of apoplexies into sanguineous and serous. He seems to think, that the effused fluid is sometimes the *cause* of apoplexy by its pressure, and, sometimes, only the *effect* of that turgescence of the vessels, which, of itself, can induce the disease. This we imagine is good pathology.

The fifth Epistle of Morgagni is on Apoplexies which are neither Sanguineous nor Serous. An accurate examination of these cases will convince any one, that there was *pressure* on the cerebral or cerebellic mass, in every instance. We need only advert in proof of this, to the case of the poor woman whose leg was amputated by Valsalva, and who did tolerably well till the third month, when, on the cicatrix healing the patient was seized with a kind of apoplexy—"affectione corripitur de genere apoplecticarum," accompanied by delirium, convulsions, and diminished sensibility in the right side of the body, which carried her off in a few days. The head being opened a large quantity of *pus* was found stagnating in the left ventricle of the brain, but no trace of injury or disorganization could be discovered in any part of the brain itself. It is hardly necessary to observe, that in whatever way this purulent collection was formed, it must have occasioned *pressure* on the brain, an occurrence which we believe to take place *invariably* in apoplexy.

Morgagni adverts to a circumstance in this Epistle, which has been more noticed in modern times than it then was. This is the fact, that there may be great determination of blood to the head, and great turgescence of vessels there when patients have died, or appeared to die, of hæmorrhage.

Thus, "in a man," says Morgagni, "whose death happened from the rupture of a popliteal aneurism and the consequent effusion of blood, numerous bloody points appeared in the sections of the medullary substance, and were enlarged to drops when I made lateral pressure on the sections. The corpora striata of this patient, when cut into small pieces, exhibited no striæ, but a continued medullary band." The translator has appended a note to this observation, part of which we shall insert here.

"After uterine hæmorrhage, and also after copious depletion on account of pulmonary and other inflammations, I have frequently observed the symptoms of cerebral congestion—and which has generally appeared to arise from the excitement occasioned by some mental effort, though occasionally it has arisen without an evident cause. Whilst the other parts of the body appear comparatively bloodless, the vessels of the head throb violently; there is severe pain; confusion of intellect, sometimes to such a degree as to threaten delirium; the pulse at the wrist is usually small and vibrating, and the countenance distressed. When I first observed these symptoms I was led to abstract blood, from an apprehension of phrenitis; but I did harm: for if the urgency of symptoms was diminished, the susceptibility to a recurrence was increased, and restoration to health was protracted. The liability to this form of cerebral plethora has appeared to me to be proportionate to the preceding hæmorrhage, and the consequent debility. If in this condition an intrusive visiter be admitted to converse, though but for a short time, with the patient—or if the patient attempt to read, or in any other way to employ the mental faculties beyond what is perfectly easy—or if the mind be agitated, this state of the head will almost inevitably be induced. It may, however, be brought on by all those causes which tend to destroy the equilibrium of circulation; and none are more likely, in this condition of the patient, than noise in the room, deficiency of sleep, improper food, a constipated state of bowels, or a morbid state of the secretion into them."* 74.

The sixth section of Mr. Cooke's translation is on Paralysis—a disease so closely allied to apoplexy, as to be scarcely separable. On the subject of paralysis we have amply dilated in this Journal, when reviewing Dr. Cooke's able researches, and when analyzing the writings of Rochoux, Bricheteau, Esquirol, and several distinguished Continental pathologists. We shall, therefore, pass over this section, as

* In the first volume of the *Medico-Chirurgical Journal and Review*, (February 1816), Dr. Seeds has detailed a suite of interesting experiments, on the comparative effects of venesection and arteriotomy. When death was caused by opening the veins of animals, a state of venous congestion was always found in the brain.

containing nothing with which our readers are not very familiar already.

The seventh section is on Epilepsy; and this subject also has been fully treated of in some late numbers of our *Journal*. Morgagni almost invariably found organic disease of the brain in the dissection of epileptic patients. He sometimes, however, traces the origin of the disease to lesions of remote parts—these lesions producing, at the time of the epileptic paroxysm, a determination of blood to the head—and, if continued long enough, disease of structure there. We shall extract the 12th case, as it is rather remarkable, in the words of Mr. Cooke.

“Anastasia Poggi, a grave and virtuous priest, was seized with epilepsy in his sixty-eighth year. He was rather corpulent, and of a florid complexion. The first attack was preceded by pain in the right hypochondrium, and was removed by bilious dejections. The subsequent accessions were generally preceded by a sensation compared to the ascent of vapour from the hypochondria to the head. He was constantly annoyed with a sense of fulness about these parts, which was increased by taking food, but more especially after liquids. The pulse was slow. There was no symptom of affection in the head, till the disease had continued some considerable time, when his head felt heavy, and he had some dulness of intellect. Under these circumstances he repeatedly derived advantage from a diminution of the vascular plenitude by bleeding. The attacks were generally of short duration, but not slight in degree. The eyes were distorted, the limbs agitated, and all sensibility was suspended. There was frequently a sense of suffocation; and sometimes these symptoms were accompanied with stertorous respiration, and an involuntary flow of urine. When the quantity of urine was augmented, either spontaneously or under the employment of diuretics, the epileptic symptoms were frequently exasperated; but they were never mitigated by this occurrence. After various other means usually resorted to had proved unavailing, half a grain of opium, taken at the beginning of the night, rendered him essential benefit. By this treatment tranquil nights and comfortable sleep were obtained, though, previous to this, he was sometimes roused by sudden difficulty of breathing, which created an apprehension of hydrothorax. So far from the head being oppressed by the opiate, the heaviness and dulness which followed the daily attacks were removed; but when the opiate was omitted these symptoms returned. Having, on one occasion, passed an unusually disturbed night from that cause, the pulse became unequal; and other remedies having failed to adjust the deranged functions, the narcotic was again resorted to, by which quiet nights were secured; and not only was the inequality of the pulse decreased, but by persevering in the employment of it every night, the pulse, which had previously been slow, acquired a more natural degree of frequency.

“No fit having returned for thirteen days, the opium was omit-

ted ; but the patient again passed nights of restlessness and watching, and the attacks of difficult respiration became exceedingly troublesome. These affections too were allayed by a recurrence to the same medicine : the fits were reduced to one a month ; and at length two months having elapsed without a single attack, I took leave of my patient.

" During the latter period of my attendance on this case, the opiate was only given occasionally. Throughout the treatment great attention was directed to the state of the chylopoietic viscera ; for I believe these sudden incursions of disease originated from morbid actions in them, and not from redundant serum in the encephalon." P. 111.

Our readers are aware, that M. Esquirol has found affections of the spinal marrow in a considerable proportion of epileptics, on *post mortem* examination. Thus out of ten epileptic patients, who died at the Salpetriere between the 1st of February and the 1st of June 1817, nine were examined, and in seven of these, there were found lesions of the spinal marrow or its membranes. When we consider, that it is principally the voluntary muscles that are convulsed in this disease, and that this class is supplied by the spinal nerves, it is not unreasonable to suppose, that the vertebral brain is more frequently affected than was formerly believed, when the spinal column was so seldom examined.*

The eighth section is on spasmodic and convulsive diseases, and contains some interesting cases. The belief, founded on dissection, that irritation, or turgescence of vessels on the origins of nerves, is the great efficient cause of spasmodic diseases, now appears to gain ground. The eighth case in the section before us shows, that Morgagni's penetration did not allow him to pass this subject unobserved.

Case. " A wool-comber, twenty-one years of age, was attacked with fever, in the course of which he had an accession of delirium. Having experienced a remission of the mental wandering, he was brought into this hospital, where convulsive actions were immediately observed in the muscles of the upper limbs, and consequently subsultus tendinum in both wrists. There was no inflammatory crust on the blood which was withdrawn, but it was of an extremely dense and compact quality. An oppressive state of coma ensued ; and three days afterward he died." 123.

On dissection, having disunited the fifth and sixth vertebræ of the thorax, much serous fluid escaped from the spinal canal. The vessels of the pia mater on the posterior part of

* See Dr. Sanders's paper in the 5th vol. of the *Medico-Chirurgical Journal* and Review. p. 7, *et seq.*

the left hemisphere of the brain, were greatly distended with black blood. "The medulla spinalis being attentively examined from the cranium to the fifth dorsal vertebra, the vessels of its pia mater were so exceedingly turgid with blood, especially its posterior surface, as to resemble an injected part. Even the minute vessels of the spinal nerves participated in this turgescence."

We shall here extract a passage from an interesting paper published some years ago, by Dr. Moulson, Physician to the Halifax Dispensary, which bears strongly on the point under consideration.

"Having frequently been baffled in my attempts to cure spasmodic and convulsive diseases by purgatives, and having lost one or two children, when treated according to the principles laid down by the most celebrated practitioners who have written upon the subject, I was determined, the first opportunity that offered, to investigate anatomically the nature of these diseases, in hopes that a more successful practice might be deduced from appearances on dissection. Soon after these failures, a case occurred in the practice of my friend, Dr. Sanders of Edinburgh, which being proof against any internal remedies, I carefully noted down the different muscles spasmodically affected, that I might see whether any difference existed between them and those that were free from spasm. Permission being obtained to examine the child's body, the contents of the abdomen and thorax were found perfectly free from disease, but upon carefully examining the brain and spinal marrow, there appeared sufficient evidence to account for the spasmodic contractions, the cause of the child's death. The nerves distributed to the muscles previously noted down (whether proceeding from the brain or spinal marrow) were found to have at their *origins*,* the blood-vessels preternaturally turgid with blood, whilst the blood-vessels ramifying upon the nerves distributed to the muscles free from disease were perfectly natural. These appearances being put to paper, and reasoned upon at leisure, an opinion was formed, that could a sufficient quantity of blood be abstracted from those parts labouring under this turgescence, the disease would be removed. After this dissection, a case of chorea occurred in a girl about 14 years of age, and the purgative plan was prosecuted to the fullest extent; instead of the symptoms being alleviated by this treatment, they were aggravated, insomuch that she was obliged to be held down in bed by her father to prevent her from injuring herself. In lieu of this treatment, leeches were applied to the spine, followed up by blisters and frictions along its whole course, and by these means she completely recovered in a very few days. This is only one of the many examples I could adduce, of cases, in which the pur-

* "By the word origin is here meant, that part of the brain or spinal marrow whence a nerve is seen to emerge immediately upon removing its membranes."

gative plan failed, and which were relieved by the treatment above mentioned. Having found that abstraction of blood from as near as possible to the origins of the nerves distributed to muscles spasmodically affected had the effect of alleviating the disease, and that a cure was completed by blistering and friction; a case occurred in which I was determined to employ them without the aid of medicine.—A boy, about eleven years of age, was playing with his school-fellows, when suddenly he fell upon the ground in convulsions. When I first saw him, he had been an hour convulsed; the pupils of his eyes were widely dilated, mouth firmly closed, and his hands clenched. I immediately ordered eight leeches to the nape of the neck, desired that as much blood should be obtained as was possible, by the assistance of cloths wrung out of warm water; and that afterward a large blister should be applied to the part. At two o'clock, P. M. I saw him first, when the leeches were ordered; at six, P. M. the blister was put on; and at ten, P. M. he was free from convulsions, and spoke quite rationally to his parents. The next day he was walking about the house, when I ordered him a laxative; and the third day from his attack I saw him flying a kite in the street. To enumerate cases of this kind, I think unnecessary; but must observe, that in every case of convulsions that has terminated fatally, I have invariably found turgescence at the origins of the nerves distributed to those muscles that were affected."*

In the prosecution of some experiments, Dr. Moulson had an opportunity of examining a horse that had died of what is termed the gripes. He could discover no visible cause of death, either in the abdomen or thorax; but upon opening the spine, he was astonished to find the blood-vessels, all along the spinal marrow, and particularly, those distributed upon the origins of the nerves going to the intestines, *gorged* with blood. The vessels of the brain were turgid, but in an inferior degree.

We observe that, in most of Morgagni's cases of tetanus, even of the traumatic kind, there were appearances in the brain or spinal marrow, indicative of inflammation or congestion.

The tenth case in Mr. Cooke's Abridgment, is a remarkable one, and we apprehend that Morgagni has misjudged it, at least, in an etiological point of view. He denominates it, "convulsions from deposition of serum, and turgescence of vessels, *originating in terror*." Before offering a comment, we shall state the case itself, somewhat farther abbreviated.

A nightman, 50 years of age, plethoric, but "so addicted to liquor that he was often inebriated," was occupied in emptying the unwholesome privies of the hospital, in the night.

* See Med.-Chir. Journal, for May 1817.

This man suddenly fancied he saw a ghost, clad in white—was seized with tremor—his mouth became distorted by spasm—and in this lamentable condition, he was conveyed to bed. He was bled that night, and, also, next morning, “after which, he had still farther remission of the irregular muscular actions, and the pulse expanded and became febrile.” Blood was again copiously abstracted, but the febrile symptoms continued, and, occasionally, the whole body was disquieted with spasm. His expression, by signs, indicated that he underwent severe pain in the head. He died six or seven days from the date of the fright.

“*Dissection.* The fingers were extremely rigid, but the arms were flexible. The intestines were inflated with gas; and the liver and spleen were of a bluish colour. The liver, too, was moderately enlarged.

“The vessels of the pia mater, even the most minute, were as turgid with blood as if injection had been urged into them; and this vascular turgescence even pervaded the lining membrane of the ventricles, and the medullary substance itself. When the commencement of the spinal marrow was lightly compressed, blood oozed from it, a circumstance which is rarely seen. But the lateral ventricles abounded with a limpid fluid, and the choroid plexuses were florid. The fornix and the crura of the medulla oblongata were of a soft texture.” 127.

Now, contrary to the opinion of Morgagni, we have no doubt, that the apparition was the *consequence*, and not the *cause*, of the disease. The habits of inebriation disposed the brain to vascular turgescence, and the phantom in the privy was nothing but a symptom of that disorder, which ultimately put a period to life. We have seen many instances, where inflammation or congestion in the brain was only indicated, at first, by some slight mental aberration, or anomalous symptom, that apparently had no connexion with so serious a state of an important organ, but where the event proved that most dangerous mischief was going on at the time.

The ninth section of the work before us is on Insanity. But our pages have, of late, presented far more important information on this subject than can be expected in the work of Morgagni. Eight cases are related, and the general pathological features were, induration of the cerebral substance, and serous effusion in the ventricles, or under the membranes of the brain.

“The brain has been found indurated by other anatomists. In my dissections the pineal gland often appeared diseased; and in almost all the dissections I have made of persons whose intellectual faculties were deranged, the substance of the cerebrum and cerebellum was unnaturally firm. The membranes of the brain have

been thickened, and the falciform process ossified, both in cases of insanity and idiotism. It has occurred to me frequently to find that there had been determination of blood to the head, and more frequently deposition of serum beneath the membranes or in the ventricles. The spleen was probably often affected, and the liver and pancreas have also been found the seat of disorganization." 136.

Morgagni, however, admits, that indurated states of the brain have been observed without any disordered state of mind, and that intellectual aberration has existed where no structural alteration could be detected in the organ of thought. We queried the propriety of appending notes to the translation of Morgagni. We think the very long one, giving, among other things, "an abstract of thirty-seven cases from Haslam's Observations on Melancholy and Madness, *a work which is well known*," is very superfluous. If Haslam's work is "*well known*," which we grant it is, why reiterate his observations here? Or why append the observations of a few individual writers on madness to a work of a general nature like this? If notes are at all proper, they should be such as give the *present state of our knowledge* on the subject under discussion in as small a compass as possible, and not the peculiar opinions of a few individuals, still less insulated cases. We think Mr. Cooke, on mature deliberation, will see the propriety of these remarks. As we said before, the notes in themselves are extremely judicious and sensible—we only question the propriety of swelling out a work, already too large for modern readers, by any thing not in the original.

The tenth section is on hydrophobia: but Morgagni never had an opportunity of examining a hydrophobic body. Two or three dissections from his friends are given, but do not contain any thing satisfactory. The note which Mr. Cooke has appended to this section is so nearly what we conceive to be the proper kind of note (if notes at all are added) that we shall here extract it as a specimen of Mr. Cooke's manner and matter.

" Since the time of Morgagni the bodies of numerous hydrophobic persons have undergone minute investigation; but unhappily the result has not yet been such as to afford any greater confidence of mitigating the heart-rending symptoms which distinguish this disease, or such as to excite any expectation of averting its speedily fatal termination. This, perhaps, is the most justly dreaded of any malady to which the human body is exposed; and no practitioner merits the satisfaction of a peaceful mind, after the unsuccessful discharge of his professional duty, if he voluntarily resort to temporizing and useless expedients when he might extirpate the bitten part.

" It will not be compatible with my present undertaking to ex

tend my remarks further than pointing out the general features of the cases alluded to ; and in doing this I shall pass over the symptoms. Unfortunately they have been so often and so touchingly delineated, that to recapitulate them would be a work of supererogation.

“ The time at which the symptoms of canine madness occur is extremely uncertain. There are insulated but strongly characterized instances in which their onset was observed within fourteen days of the bite, but those who have most frequently witnessed the disease, place their occurrence at a more distant period. The disease appears seldom to arise earlier than three weeks, and in most cases the intervening time exceeds this period, and extends to an indefinite term of weeks, months, or years. It will, however, be found to have transpired most frequently before two or three months have elapsed ; but as far as we can rely on phenomena which pass under observation, and which associate the hydrophobic symptoms with a previous and suspicious bite, some years have glided away between the insertion of the poison, and the consequent disease. Morgagni alludes to the term of twenty and even forty years, but these statements must be received with great distrust.

“ Occasionally this affection discovers itself before irritation completely ceases in the injured part, when as a precursor of the secondary disease the morbid action increases, and is propagated in the course of circulation, I may elucidate this by referring to a case related by Mr. Webster. A man was bit in the hand July 21st. He never entirely lost the sensation of pain in the part. On the 16th of August the pain became more severe, gradually extended up the arm to the shoulder and breast, and on the 19th the arm was immovable. He was first visited by Mr. W. on the following day. The pain was excruciating, small cicatrices of a red colour were observable on the hand ; and the man was unquestionably labouring under hydrophobia. Though comparatively of rare occurrence, there have been instances in which after complete cicatrization, and the entire cessation of excitement, the scars have again become inflamed, and the inflammation has been accompanied with itching and pricking sensations. In the generality of cases the wound has completely healed, and has ceased to awaken the least attention ; and though sometimes a degree of redness comes on, in most cases there is no such premonitory token, or it is so slight as to elude observation. To this point, however, great attention ought still to be directed, for were it possible to determine only the frequent occurrence of this intimation, some hope may be entertained, that by timely interposition the horrible distress, and the melancholy catastrophe which otherwise await the unfortunate individual may after all be averted.

“ On examination after death, no uniformity has been observed in the morbid appearances. In most cases there are striking marks of cerebral congestion ; the vessels are loaded—indeed sometimes gorged with blood. The tunica arachnoides has occasionally been inflamed and thickened, and a redundancy of serum has been found

pervading the surface of the brain and distending the ventricles ; and bubbles of air have been found blended with it. The structure of the brain is often exceedingly firm. The mucous membrane of the larynx, trachea, and bronchia, as well as of the pharynx and œsophagus present more constant appearances of augmented vascularity. This appearance has varied in degree ; sometimes representing a slight blush of inflammation, at others the inflammatory action has been more conspicuous, but with equal if not greater frequency it has borne the aspect of congestion of blood, appearing, from the lividness of colour, as if the affected parts were verging to gangrene. The œsophagus has been found in a contracted state, and this tube, as well as the trachea, has been observed to be destitute of its natural moisture. An unusual prominence has been noticed in the papillæ of the tongue. The lungs are often the seat of excessive congestion of blood, and the pleura is occasionally inflamed. The heart is sometimes enlarged, and its vessels appear in a state of turgidity. The inner coat of the stomach frequently exhibits a plethoric condition of vessels with numerous spots, which seem to be owing to extravasation of blood ; the rugæ being large and prominent. In this state of increased vascularity the diaphragm has not unfrequently participated. The liver and other viscera have occasionally presented indications of similar disorder, which might indeed be expected under such exquisite nervous susceptibility, such mental perturbation, and such vascular excitement, as are associated in this disease. The inequality in the distribution of blood is often denoted by the comparative state of the larger vessels after death, some of them being loaded with blood when others are empty. It is a circumstance worthy of notice that in many of these bodies, putrescence occurs soon after death.

"The infection is usually imparted by the bite of a dog or cat ; in India, the jackal is also an agent of its propagation. M. Breschet is reported to have communicated the disease to a dog by inoculating him in the neck with the frothy saliva of a man under hydrophobia. Morgagni believed that the disease had even arisen from the virus having only fallen on the human skin, but this is scarcely credible.

"Symptoms which greatly resemble those of rabies contagiosa have arisen from moral impressions. An anecdote is related by Morgagni, which shows how powerfully the mind may be agitated, even where the intelligent and professional character of the individual would have forbidden the expectation of such an occurrence. Alberto Fabbri, who was the first physician in Bologna, a little before Morgagni's time, was seized and strongly held by one hand, by a patient labouring under hydrophobia, while he was feeling the pulse with the other. He became so extremely dejected, as scarcely to command his reason, and the idea of self-destruction often occurred to him. For seven days he had abstracted himself from society, when his attention being rivetted through perpetual gloom, he was wetted to the skin under a heavy shower previous to his being conscious of it. The place was solitary, and

before he could obtain shelter his melancholy was washed away. It is probable his imagination was influenced by a reliance on the efficacy of a sudden and unexpected profusion of water in averting hydrophobia. Here certainly no hydrophobic symptoms had arisen, but in other cases, from equally unwarrantable grounds, they have been developed; and perhaps but for the propitious shower, a modification of them, at least, might have been the destiny of Fabbri."—*Ed. P.* 155.

The eleventh section on aphonia and paraphonia contains but three cases, two of them depending on cerebral lesion, the third sympathetic of derangement in the digestive organs—a fruitful source of local disease, and local irregularity of action. We shall give some account of this last case.

A nobleman, 60 years of age, subject to bilious affections, gout, and hæmorrhoids, but from which he had lately been free, was seized with loss of voice in the beginning of May, attended with some difficulty of breathing, and a sense of constriction about the larynx.

"The aphonia suddenly came on, and as abruptly ceased, without any excretion. The periods of attack and duration were variable. Its continuance did not exceed two minutes, and often it was even more transient. He had an attack almost constantly about one o'clock in the morning, and it sometimes occurred in the day. Indeed whenever he drank wine, and sometimes when he gaped, sneezed, or coughed, he was invaded by this affection.

"When seized he could take nothing into his mouth, nor rest in one place, but was constrained to walk about. The tonsils were slightly inflamed, and there was a copious discharge of acid humour by spitting." 159.

Blood was sparingly abstracted, first from the arm, and afterward from the anus—gentle purges were given, and afterward diluents. In consequence of these means he passed several nights without his usual annoyance. He was then advised to take a short journey, and he recovered in six weeks or two months.

We shall pass over Morgagni's Observations on diseases of the eye and ear, because the disorders of these organs have been investigated by modern surgeons with far more minuteness than in the days of our illustrious author. The section on diseases of the nose need not detain us, as there is nothing interesting in it. We were a little surprised to find a case of *apoplexy* under this head. There was only mere suspicion that the turgescent state of the cerebral vessels was determined by sneezing; and had this been demonstrable, still the case should have come in in the sections on *apoplexy*, regardless of the etiology of the disease. As well

might we range tetanus among affections of the fingers, because it sometimes succeeds injuries of these parts.

The 15th section on injuries of the head, with and without fracture of the cranium, contains many cases that may be advantageously consulted by the practical surgeon.

The second chapter is on diseases of the thorax; and it may readily be imagined that it contains numerous interesting cases of lesions in the pleura, lungs, and heart. We cannot do any thing like justice to this important division of the work.

The most frequent organic disease of the lungs occurring in Morgagni's dissections was consolidation, or hepatization the consequence of inflammation. Effusion, suppuration tuberculation, are, we apprehend, of more frequent occurrence than canification of the lungs.

At page 302, Mr. Cooke has appended a note, containing the particulars of an interesting case that fell under his own observation. We shall somewhat condense it in this place.

On the evening of the 6th of March, 1820, Mr. Bates was seized with a rigor, succeeded by intense heat. In the evening of the 7th our author saw him. His pulse was then extremely rapid and firm, his mind having been a little confused, but now tranquil. He complained of violent pain in the chest, and aching of the limbs; his countenance and general appearance bespeaking a most formidable attack of disease. He was bled copiously—purged—and was ordered saline aperients. 8th, was found much better; but his pulse was rather quick, and he had some erratic pains in the limbs and joints. No rigors; bowels open. He was desired to live low, and use aperients. In three days he was downstairs, walking about a little, and proposed to visit London on the succeeding day. This was a fatal lull before a storm.

“On the evening of the same day febrile symptoms recurred accompanied with some wandering pains: he passed a distressing night, and early the following morning my attendance was requested. He complained of almost intolerable pain in the loins, extending thence to the thorax, and especially through the region of the diaphragm, but rather on the right side. His respiration appeared to be carried on without the action of this septum. He had not evacuated the bowels for twenty-four hours; consequently there was some abdominal intumescence, but no tenderness. He experienced a sense of violent constriction of the chest; the pulse was a hundred and twenty; and the tongue yellowish. I took from him twenty ounces of blood, and instituted, both in relation to diet and medicine, a strictly antiphlogistic plan.” 303.

Dr. Uwins now joined in attendance. They agreed to re

peat the bleeding, and to persevere with purgations aided by enemata.

"The ensuing morning we were informed that the pain continued to abate, but the tongue was flocculent and very dark coloured: the abdomen was tumid, and communicated to the patient the sensation of extreme fulness. He could scarcely respire; his countenance was deeply distressed; the angles of the mouth were depressed; and the pulse was a hundred and twenty. None of the means resorted to having proved effectual to open the bowels, we agreed to administer elaterium. He took, in divided doses, three quarters of a grain of Dr. Clutterbuck's preparation of that medicine. A few hours subsequent to taking the first dose, some extremely dark and offensive stools were voided; and between this time and our visit the following day, the bowels had been evacuated copiously; the evacuations were dark and bilious, the tongue was brown, the pulse was very small and weak, the eyes were sunk, and the countenance evinced that peculiar expression of deep solicitude so characteristic of serious organic mischief. He had hitherto subsisted on the most innutritious fluids, and still only partook of liquid aliment.

"In the middle of the day the evacuations were rather bloody, and exhaled a cadaverous odour. Though he was evidently in an almost hopeless state, his mind, naturally energetic, was buoyed up from an impression that he had experienced essential benefit since the intestinal evacuations.

"On the fourth day after the relapse, (March 13,) he reported himself conscious of increased weakness, but he had less pain, and could make a deep inspiration, and fully expand the chest without the least impediment. All the uneasiness experienced in this effort arose from some tenderness of the abdomen. He believed himself to be perfectly relieved from the thoracic affection,—and anticipated early restoration to health." 304.

On the 14th it was evident that death was at hand. The pain resulting from the attack upon the heart increased progressively through the day, and in the evening was unbearable. He died at eight o'clock next morning. The *post mortem* appearances we shall give in our author's own words.

Dissection. 'The external aspect of all the abdominal viscera I found perfectly natural, but the intestines, especially the colon, were inflated with gas. The mucous coat of the stomach was extremely red and appeared as if blood-shot; and this appearance extended through the duodenum: it became more slight in the other small intestines, but was again considerable in the cæcum. The villi were exceedingly turgid with blood. In the colon there was a remarkable cohesiveness of the fecal contents to the mucous surface, which I found to arise from their adhesion to that kind of

extraneous membrane so often formed upon inflamed surfaces, and which pervaded nearly the whole of this intestine.

"On attempting to open the thorax I found the cartilages had ossified, and in some places the intervening ligaments were almost in the same state—circumstances unusual at so early a period of life. As soon as the thorax was penetrated by dividing the fourth rib, serum and lymph began to issue; and when the sternum was reflected, I found the pleura pulmonalis on the right side strongly adherent, in several parts, to the costal pleura, and to the diaphragm. At the upper part of the chest, between the adhesions, about a pint and half of serum, containing numerous flakes of coagulable lymph, was deposited; and below that fluid, nearly an equal quantity of pus, or at least, a puriform fluid, was accumulated. This fluid was separated from the serous by parietes of coagulable lymph in the form of a dense but ragged cyst, resting upon the diaphragm, the pulmonary surface of which was highly inflamed throughout.

"The pericardium was occupied by about a pint of turbid fluid, like whey; the superficies of the heart was coated with lymph; and the inner surface of the pericardium was highly inflamed and likewise covered with this kind of concretion. The heart itself was small and empty; and the parenchymatous tissue of the lungs did not appear to be involved in the disease." 306.

Mr. Cooke has prefaced the article phthisis with a neat sketch of the opinions of Bayle, Portal, Baillie, Baron, Broussais, &c. We were not a little surprised to see that he took no notice of Laennec, who investigated the subject of tubercular phthisis with far more success than any of the authors mentioned.

The morbid anatomy of the heart and large blood-vessels occupies full one hundred and fifty pages, but we have not seen any thing on which we could dwell—the diseases of this organ being now far better understood than in the days of Morgagni. We observe, with surprise, that in the notes to this section also, Mr. Cooke quotes Corvisart and most of the writers on diseases of the heart, but never alludes to Laennec. This is quite inexplicable. We quote the following case from Mr. Cooke—a case which he considers as owing to "nervous irritability," but which we suspect will turn out, in the end, to be organic disease of the heart, however promising the appearances may be at the present time.

"Early in the morning of the twenty-fourth of last October, I was requested to see a gentleman, about fifty years of age, who was labouring under extreme distress from pain in the region of the heart. The history given me was, that, for some months, the patient had been annoyed with flatulence and acidity in the stomach, and occasional dejection of mind; and within the last fortnight, especially after a little exertion, he had experienced oppression at the chest, and pain in the heart; but these attacks generally

soon passed off. The paroxysm, however, had continued throughout the night preceding my visit. The pain was diffused through nearly the whole of the left region of the chest, it extended to the shoulder, and down the arm to the ends of the fingers. He could make a deep inspiration without any material increase of suffering. His countenance did not evince a degree of disease equivalent to the distress he appeared to suffer. He said the agony was inconceivably violent, and peculiar in its nature; but though it had been constant during the night, the degree was occasionally heightened; and whilst these accessions lasted, he felt as if instant death were inevitable. The left arm had been almost cold, but when I saw him it was nearly as warm as the right. The pulse, in this wrist, was scarcely perceptible, and occasionally it was intermittent; but the action of the opposite radial artery was strong, rather full, regular, and about a hundred and thirty in a minute. He had no pain in the head, nor any tendency to syncope. I regarded it, at this time, as a case of *angina pectoris*.

"About eight ounces of blood were withdrawn, and he took some hydr. submurias, with sulphate and carbonate of magnesia; and adopted an abstemious plan of diet. In the course of the day he had one or two severe attacks, but in the evening his circumstances were decidedly improved. On the twenty-fifth the pulsations were more equal; he experienced but little pain, though he distinguished a sense of weight in the region of the stomach, and some fulness in the fauces. On the twenty-sixth the pulsations were equal, about a hundred in the minute, and moderately soft. He now took an alkaline bitter, and an occasional dose of mercury, and recovered in a few days.—*Ed.*" 506.

Morgagni quotes a curious case from Ramazini of a young man in whom, for the space of four days, no pulsation could be felt in any of the arteries; yet he was strong and active, "and even the day of his decease he rose from bed and dressed himself." "During these four days he was perfectly cold, and did not micturate." No dissection is given. The editor of this Journal, in consultation with his friend, Dr. Lara of Portsea, saw a very curious case of this kind, a few years ago, and as they had an opportunity of opening the patient after death, it may not be uninteresting in this place, though some particulars of the case were published in one of the early numbers of the monthly form of this Journal.

"Case. An old superannuated soldier, 65 years of age, corpulent, dropsical, and afflicted with ulcerated legs, applied for gratuitous relief on the 10th of January, 1817. There was evident fluctuation in the abdomen; the urine was scanty, and the legs œdematous. There was a peculiarity in the countenance, which induced the reporters to examine the region of the heart. No motion of that organ was perceptible in any position. The radial arteries were then felt for; but no pulse could be distinguished by

either of the medical gentlemen present. The temporal artery on the left side was seen large and tortuous ; but, on compressing it, no pulsation whatever was perceptible by either of the medical gentlemen. The other temporal artery also was destitute of pulsation. The carotids gave an obscure sensation of pulse. On being questioned if he felt different from what he had done for some days past, he replied in the negative. His health was bad, but not worse than usual. One of the medical gentlemen returned early the next morning to examine the patient, but found him in precisely the same state as to the arterial system. Some blue pill, aloes, squill, and digitalis, had been prescribed the preceding day. On the third morning one of the medical gentlemen returned. The patient said he had made a good deal of water, that his bowels were open, and that he felt much better. The pulsations were now perceptible in both radials and temporals. In the course of a week, the medicine seemed to lose its effect, and the urine to become again scanty. There was, however, an oozing of at least a pint of water daily from the ulcerated and œdematous legs. There was now evidently a great collection of water in the abdomen, and the patient informed Drs. Lara and Johnson, that he had once or twice lately felt some strange sensations in his chest, as though he were going to die. Great palpitation and anxiety in the region of the heart were felt at these times. On Wednesday, the 15th of January, the above-mentioned gentlemen visited the patient. They found him copying music, he having formerly belonged to the marine band. He said he found himself but indifferent. His urine was scanty, the abdomen much swelled, and still that indescribable expression of countenance which first attracted so much attention. All the arteries, however, were in full play, and distinctly pulsating. On the evening of this day, the nurse observed that the ulcers of the legs were suddenly dried up. He went to bed, at the usual hour, without complaining of any thing in particular, but was found dead next morning.

“ The singularity of this case, in respect to non-pulsation of the arteries for such a long space of time, excited much curiosity as to the state of the heart ; and with some difficulty, permission was procured to examine the thorax.

“ *Sectio Cadaveris, thirty hours after death.* The face and neck quite livid with extravasated blood. The abdomen was of an immense size with water, and anasarca prevailed pretty generally. The moment that the knife was pushed through the cartilages of the ribs, bloody serum gushed out in great quantities, and the lungs were protruded through the incision of the left side with much force. This was occasioned by the pressure of the diaphragm upon the thoracic viscera : it seemed indeed ready to give way every minute, and deluge us with the abdominal collection of water. After sponging out a considerable quantity of water, the lung of the right side was found healthy ; that of the left, hepatized, and also anasarous : it was firmly adherent to the pleura costalis in all places. The pericardium was tense, and contained a few ounces of serum. The

heart was considerably and equally enlarged ; at least one-third more than its natural volume. It appeared to be rather active than passive enlargement. The auriculo-ventricular opening of the left heart was also very large, but the margins of the valves presented cartilage and incipient ossification. The aorta was enlarged, but the semilunar valves were sound. The origins of the two coronary arteries were larger than the reporters ever remember to have seen ; they would nearly admit the tip of the little finger. These arteries were slit open, and some of their branches appeared as large as the coronary arteries usually are found.

" It is not improbable that the liver was diseased ; but the ascites precluded the idea of examination."

" The great peculiarity in this case is the remarkable phenomenon of non-pulsation of any of the tangible arteries, except the carotid, for so long a space of time, apparently without much inconvenience. The temporal artery was turgid and very distinctly visible. If any pulsation existed, it must have been easily felt. Are we to suppose, that there was no *motion* of the blood at this time through the vessels ? or is it not more probable that the motion was so *languid*, in consequence of the embarrassed situation of the heart, that the phenomenon of pulsation was imperceptible, as in the veins, where the current is known to be so slow ? When the bowels were set in motion, and the urinary secretion increased, the pulsations returned, and the heart obtained a momentary freedom of action. The drain from the legs procrastinated the fatal blow ; and thoracic effusion, in its usual sudden and silent manner, snapped the thread of life without a moment's notice."

These cessations of pulsation in arteries we look upon as very suspicious symptoms in most cases. It is well known that this was one of the first things that attracted the notice of John Hunter to a disease that ultimately destroyed him. Feeling pain one day in the epigastric region, he accidentally observed, by looking in a glass, that his face was pallid as a corpse ; and on applying his fingers to the wrist, there was no pulsation in the arteries. His breathing could only be carried on by *voluntary* exertion. In this state he continued three quarters of an hour, feeling as if death would inevitably take place, if respiration was not carried on by voluntary efforts. He died in one of these paroxysms, nearly twenty years after the first accession of the disease, during a fit of passion in St. George's Hospital, in October 1793. On dissection, the coats of the stomach and intestines appeared loaded with blood. The pericardium was thickened, so that it would not collapse on being slit open. The heart was very small, and its muscular structure paler and of looser texture than natural. The coronary arteries were converted into bony tubes. The mitral valves were ossified in some places, and the aortic valves were rather indurated. There was also incipient aneurism of the aorta.

We shall here insert a case of disease of the heart, described by Morgagni in his 24th epistle, article 13.

A middle-aged man came into the hospital in the spring 1705, complaining of pain in the right hypochondrium, where there was an evident enlargement, apparently of the liver. The pulse was remarkably small and frequent.

"About four hours after coming into the hospital, he was attacked with such violent pain in what he designated the stomach, that from its severity, and the paleness of his face—from the perspiration which attended it—from the pulse being almost imperceptible—and from the respiration being in the state it generally is in dying persons, he appeared actually on the point of death. From this attack, however, he recovered, and related to the persons around him, that he had several times undergone similar paroxysms. His pulse returned to the state I have described. On the following day the physician ordered blood to be withdrawn from the arm, directed the administration of suitable medicines. The tumour of the liver gradually disappeared after a few days, when the man was seized with pain in the region of the heart, accompanied with difficulty of breathing. A small quantity of blood was again withdrawn, by which the respiration was somewhat relieved, but the state of pulse was only improved in a slight degree—indeed it was so small and languid, in the temples as well as at the wrists, as to be scarcely perceptible. I applied my hand to the left side of the chest, and found that the heart beat with equal frequency, and with moderate power. The action of this organ was sensibly felt far below the region it occupies. It seemed to labour, and the patient solicited what are commonly termed cordial medicines. About the eighth or ninth day after coming into the hospital he died suddenly."

"*Dissection.* The pericardium contained a large quantity of yellowish serum; and, from enlargement, as well as the accumulation of fat on the heart, that organ was the most unsightly I have witnessed. The small vessels of the lungs were black, and distended with blood; the texture of the lungs, between the vessels, was whitish, except at the upper part, where, both externally and internally, the tissue was black and extremely indurated; and when cut into a thickish fluid of a tobacco colour issued from it.

The liver was indurated and marbled; and not only exhibited small white spots, but some also which were of the colour just mentioned. The coats of the gall-bladder were black, and that receptacle contained bile which in colour resembled ink, although the contiguous pylorus and duodenum were tinged yellow." 511.

We not unfrequently meet with cases in which the disordered action of the heart is such as to lead to a conviction of organic disease in that viscus, and yet the event for a time belies the unfavourable conclusion drawn. There is a remarkable instance of this kind related by Dr. Clutterbuck.

in the first volume of the Transactions of the Medical Society of London, where a female recovered by rest and judicious evacuations from a state apparently hopeless. We may be permitted to give a greater publicity to this case than it has ever yet received, by stating some of the particulars in this place.

Mrs. C. ætat. 35, married, applied to Dr. C. October 29th, 1814. General appearance exceedingly distressing; countenance expressive of great anxiety; skin perfectly pallid and ex-sanguine, except lips and cheeks, which bore a leaden hue; tongue clean, moist; ex-sanguine; extremities cold; pulse weak and irregular; breathing much oppressed; face bloated; legs œdematous to the knees; constant uneasiness in the region of the heart; frequent palpitations, even when in bed; always upon walking; pulse at the wrist irregular during palpitation. Upon making any unusual exertion, the cardiac uneasiness is aggravated to the degree of acute pain, extending to the back, collar bones, and middle of the upper arms, particularly the left. Menses regular in period, but trifling in quantity, and nearly colourless. Appearance altogether chlorotic, with not a few symptoms of hydrothorax, or hydro-pericardium. Appetite very bad; great uneasiness after eating; constant constipation; general strength greatly reduced; apparently in a very dangerous state, of which she herself was sufficiently aware.

These symptoms had continued for several months, gradually increasing. They commenced soon after an inflammation in the chest.

These symptoms sufficiently indicated an excess of irritability and disordered action in the heart; while their duration, severity, and their having succeeded an attack of thoracic inflammation, gave reason to apprehend some disorganization in the structure of that viscus. Notwithstanding the debility and exsanguineous state of the patient, it was feared that inflammatory action was still going on, and therefore about five ounces of blood were abstracted from the arm, which the patient bore without inconvenience, and evident relief was obtained. Digitalis was administered in small and frequent doses, as was also ammonia, with the view of exciting a little action in the stomach, and of determining to the surface. Several evacuations were daily procured from the bowels by aperients; and plain easily-digested food was allowed, but all strong drinks prohibited. Perfect quietude and the horizontal position were enjoined—she was confined almost entirely to bed for ten weeks. The blood-letting was repeated at intervals, and the plan altogether persisted in for nearly three months, with gradual and continued amendment. At the end of that period her health was perfectly restored. Dr. Clutterbuck very justly remarks that, had

this case been treated with tonics and stimulants (medicines that are too often had recourse to under similar circumstances) the disease would, in all probability, have been aggravated, and the patient's life been lost.

Dr. Bourne, of Coventry, has also detailed a very instructive case of this kind, in the 4th vol. of the *Medico-Chirurgical Journal*, where disordered action of the heart prevailed to a very great extent—where the pulse was extremely feeble, irregular, and intermittent, so that scarcely a distinct beat could be reckoned every three or four seconds, with fluttering undulatory vibrations intermediately. The surface of the body was pale and cool—the legs œdematous—urine scanty—and the patient could only lie on her back with her head raised. Under these circumstances a small quantity of blood was abstracted from a vein, which seemed to improve the state of the symptoms, while small doses of calomel, antimonial powder, and digitalis were exhibited internally. By these, and a few other remedies of a similar tendency, the patient was saved for that time, and had apparently recovered, with the exception of some little irregularity of pulse which still continued. She pursued her domestic concerns till the ensuing spring, (nearly six months,) when the same symptoms returned, but she then put herself into the hands of a quack, who soon, as may be readily supposed, consigned her to the care of the undertaker. These cases are, in truth, exceedingly fallacious, in their appearances, and uncertain in their terminations. We lately witnessed a very remarkable instance of the kind. A young lady had laboured for more than two years with all the usual symptoms of active enlargement of the heart, attended with great sufferings, emaciation, œdematous swellings, and other formidable phenomena. When apparently at the brink of the grave, she took a turn for the better, and nearly lost the whole of the above-mentioned symptoms. When appearances were thus so flattering, and the friends were beginning to taunt the doctor about his false prognosis, the train of morbid phenomena returned, and now put a period to her existence in the course of two or three months.

Morgagni makes many ingenious and just observations on the pulse. He mentions the case of an old man who had had epilepsy from an abdominal affection, and in whom he found the pulsations only 22 in the minute; which sluggishness had existed for several months, though the man was able to walk about like a healthy person. We have seen four or five instances where the pulse was at or under 30 in the minute; but in three of these cases the pulse, when any little occasional excitement took place in the system, rose to

just double the number of the ordinary rhythm. From this we have been led to conclude that, under such circumstances, every second contraction of the left ventricle failed to produce the sensible phenomenon of the pulse, though the circulation went on nearly the same as in the ordinary state of the heart and arteries. The last case of this kind which came under our notice, was the late Mr. Busby of Bond-Street, whom we attended in consultation with Mr. Cosgreave, an intelligent practitioner in Surry-Street. His pulse had been for years at 28 in the minute; but on several occasions it rose all at once to 56 and even more. He was subject to a train of exceedingly anomalous symptoms, attended with long paroxysms of syncope. He died rather suddenly about twelve months ago, and we could not obtain permission to open the body. We have no doubt, however, that there was *valvular* disease of the heart. He was nearly seventy years of age.

We shall extract the following case from Morgagni, to show that he has described the disease, since more fully delineated by Dr. Baron, under the appellation of "tuberculated accretions of the serous membranes."

"A little before the close of the year 1704, a lad experienced some difficulty of breathing, which arose without any evident cause. He was received in the hospital of St. Mary de Morte, and different methods of treatment were employed, but without success. He was repeatedly bled, and the dyspnoea was alleviated for a time by this means; but though purgative medicines did not appear to be injurious, he was not benefited by them in the slightest degree. These circumstances were related to me when I first saw the patient, which was scarcely three days before his death. He was then pallid, and the state of his respiration constantly required the erect position. During the act of inspiration I observed that the lower part of the chest was greatly elevated. He had no thirst, the temperature of the skin was not hot, nor had he any other indication of fever. The arterial pulsation was frequent, but, when the hand was applied to the chest, the palpitation of the heart appeared to be much more frequent than the pulsations of the arteries. This comparison was repeatedly and attentively instituted, and the contrariety I have mentioned was uniformly observed. The actions of the heart and arteries were astonishingly unequal. The difficulty of breathing having greatly increased, he died about the hundredth day from the commencement of the disease. At the time of his disease the face was swollen, but the feet were not œdematous.

Dissection. The face was still tumid, and there was a degree of lividness about the eyes and abdomen. The omentum appeared to be of a blackish colour, and both its surfaces were covered with globular bodies like glands. The liver was externally white, and

internally it approached a tobacco colour. It had contracted unnatural adhesions to the adjacent parts, especially to the septum transversum. The peritoneum also, where it invests the diaphragm, was rugged from globular substances, which varied in their size and figure. The abdominal cavity contained a redundance of serous fluid of a yellowish green colour.

Both the thoracic cavities were filled with fluid like that effused into the abdomen, and flakes of lymph, resembling thin membranes, floated in it. The right lung adhered to the costal pleura, and the posterior part of this membrane presented an appearance like ecchymosis, and the blood extravasated here was of a crimson hue. The left lung, at its upper and lateral parts, was firmly annexed to the pleura, which in those places, and also the pleuritic covering of the subjacent diaphragm, and of the anterior part of the mediastinum, was not only beset with round bodies similar to those which pervaded the peritoneum, but the membrane had acquired a degree of hardness and thickness which exceeded the density of the coats of the aorta at its origin. The internal texture of the pleura consisted of a white substance, made up of minute particles. When the lungs were compressed they were observed to be full of frothy ichor. The pericardium scarcely obtained more fluid than is usually found in that bag, but the fluid exhibited the same appearance with that which occupied the other cavities." 520.

Even the *hydatid* origin of these tubercles is alluded to by Morgagni, as the following passage will show.

"It is difficult to determine the cause of the appearances which presented themselves in the pleura. Hippocrates and Galen entertained the opinion, that serous fluid may be accumulated in the thorax and pericardium from ruptured hydatids, which had been observed in the ox, the dog, and the sow; and from their existence in these animals it was inferred that the human body was liable to them, in a ratio of increase proportionate with its greater tendency to disease." 528.

We must now close our first article with the first volume, and shall, in our next number, present our readers with a series of cases and observations from the other volume. We have furnished sufficient specimens both of the translation and notes, to enable the reader to form a very correct opinion of both the one and the other.

VII.

The Study of Medicine. By JOHN MASON GOOD, M.D.
F.R.S. Memb. Am. Phil. Sec. and F.L.S. of Philadelphia. In four volumes, 8vo. pp. 509—935—652—723.
London, 1822.

THE construction of a work like this requires an extent of erudition, and an indefatigability of research to which few medical men of the present day can lay claim. When we contemplate the various works which have emanated from the pen of Dr. Good, we must be constrained to acknowledge that his intimate acquaintance with almost all branches of science, literature, and the arts, places him in the very first rank of our learned physicians.* To this we may add, that his zeal and industry are not inferior to his talents and erudition—so that, upon the whole, it is not once in a century that we can hope to find such a union of qualifications for so arduous an undertaking. That a work of this kind was much wanted, is proved by the favourable reception accorded to the compilation of Dr. Thomas—a work of very ordinary pretensions or merit at the best, but now disgraced by English prescriptions for the use of “country clergymen and heads of families”—in imitation of those famous “Reecéan Pandects,” which were once the oracles of old women and lay practitioners, after the “primitive physick” of Wesley had been gathered to its forefathers. Of a very different cast and complexion is the work before us, the object of which is, to unite the different branches of medical science, physiology, pathology, nosology, and therapeutics, into a general system, so that the whole may be contemplated under a single view, and pursued under a common study.

Without being great sticklers for nosology, we are perfectly ready to admit the immense advantage which the *study* of medicine derives from a nosological arrangement—

* We shall only allude to some of the principal productions of this author—viz. 1. The translation of Lucretius, with copious notes, in two volumes, quarto. 2d. The Book of Job, literally translated from the original Hebrew. 3d. Pantologia, or Universal Dictionary of Arts, Sciences, and Words, by Dr. Good and Dr. Olinthus Gregory. 4th. Physiological System of Nosology—so well known to the profession. 5th. Self-knowledge. 6th. Sacred Idyls, translated from the original Hebrew. 7th. Sketch of the Revolution in 1688. 8th. Various tracts on Prisons and Poor Houses. 9th. The History of Medicine from the earliest periods. 10th. Essay on Medical Technology; and lastly, the voluminous work before us, containing more than three thousand pages of closely printed letter press.

especially when that arrangement is founded, as in the present instance, on a physiological basis, "in which the disease of the respective functions of the animal frame are connected in classes derived from those functions, and follow each other in the order in which physiologists have usually treated them."*

We agree with our author that in grouping diseases, not arbitrarily, but in the order of connexion with their appearance in different functions and organs, it is almost impossible to obtain an insight into the nature of any one disease belonging to such groups, without obtaining some insight into the nature of the rest, or tracing out some of the laws of morbid action which are common to the whole. This is a paramount advantage attending a nosological arrangement.† On the particular nosology of our author it is now too late in the day to offer any remarks. It has been five years before the public and has been adopted as a text-book in various medical schools, as well as by individual writers. Like all new systems of nosology, it requires a new technology—and that is unquestionably an evil. The arrangement of Dr. Good we certainly prefer to every other, though no nosological arrangement has yet appeared, without defects. To the nomenclature too we dare not object, since it is exclusively taken from the Greek, as far as regards his classes, orders, and genera—his authorities, in general, being Celsus and Galen. When he happens to wander farther, he usually supplies himself from *Ætius*, *Cœlius Aurelianus*, *Dioscorides*, or *Aristotle*.

A pretty active spirit (as Dr. Good himself observes) of *PHYSIOLOGY* pervades the whole work—the author prefixing to every class a summary of the most important laws and interesting discoveries of physiology that relate to, or can elucidate the subjects which constitute its scope. He has also occasionally enriched the dissertation by a glance at the more striking analogies of the animal and vegetable world at large, whenever they could add to the illustration.

In the pathological department our author trusts "that nothing is newly started for the mere sake of novelty, or controverted from a mere love of disputation." In this de-

* Preface, p. v

† That nosological distinctions and minuteness have sometimes been carried to excess, will, we think, be allowed by any one who glances over, for instance, *Plenck's Methodical Arrangement of the Diseases of the Eye*, in which he will find 119 genera, comprising nearly 600 species, or distinct diseases of a single organ!

Hei mihi ! tot mortes homini quot membra ; malisque
Tot sumus infecti, mors ut medecina putetur !

partment we shall probably have occasion to point out some principles and facts to which Dr. Good's attention does not appear to have been sufficiently drawn.

In therapeutics "the author has allowed himself a liberal range, and has, occasionally, introduced into his *materia medica* substances that are highly esteemed abroad, though little valued or even known at home, or that seem, without reason, to have fallen into temporary disrepute." Dr. Good thinks, that if the pharmacopœias of former times were occasionally loaded with medicines of trifling importance, the present system of lopping and topping is calculated to make destructive inroads on their boundaries, taking from them much that is good along with some things that might be spared. A work, our author observes, which is erected on scientific principles, should know nothing of the accidental reverses of reputation which befall many of our most powerful remedies—"and still less of the varying, and too often capricious taste of the day." He has, in fact, felt himself called upon by the general voice of the times to range with some latitude over the medicinal stores afforded by art and nature, and to discriminate the respective properties of each, rather than to limit himself to a few leading productions, or to refer to the whole under the general divisions of stimulants, sedatives, cathartics, or other classific appellations.

"Whatever may be the theory or the practice advanced in the ensuing volumes, the author will generally be found to leave nothing upon trust; but to support or illustrate his assertions by authorities which he has endeavoured to give, with some degree of copiousness, from ancient as well as modern times; so as to render the work in a certain sense a summary of the general history of medicine in most ages and countries." Pref. p. xii.

The above passage will show that any attempt at a regular *analysis* of an elementary work occupying *three thousand pages of analytical matter* would be quite preposterous. Nevertheless, as we consider these volumes eminently calculated to facilitate the study, and improve the practice of the rising generation at least, we shall take a rapid survey of the six great classes into which Dr. Good has divided his subject, by which course we shall have an opportunity of affording our readers a considerable insight into the nature and execution of the work, while we offer such candid commentaries as our experience or studies may suggest.

CLASS I. *Celiaca. Diseases of the Digestive Functions.*

This is the first, and perhaps the most important class of all. It occupies nearly the whole of the first volume of the

work. We think Dr. Good was right in beginning with the digestive function, because it is the only one common to all classes of animals from the alderman to the hydatid*—all having an internal cavity of some kind—and all appearing to have a propensity to store it with provision of one description or other.

Preceding the actual diseases of the alimentary canal, we have a neat physiological proem, or sketch, of the organs and functions of digestion—both in man and animals. These proems, which are prefixed to all the classes, are well calculated, not only to enlarge the student's views, but to lead him to cultivate a more intimate acquaintance with comparative anatomy and physiology than he might otherwise be inclined to do. A short extract or two from this portion of the work will show Dr. Good's manner and style. After alluding to the almost infinite variety of food made use of by different nations, and different classes of society in the same nation, from turtle and venison to fish-oil and potatoes, Dr. Good sums up thus :—

“ Man therefore is omnivorous. But he is not the only omnivorous animal in the world ; for the great Author of Nature is perpetually showing us that though he operates by general principles, he is in every instance the lord and not the slave of his own laws. And hence among quadrupeds the swine, and among insects the ant, (and more examples might be adduced if necessary,) possess as omnivorous a power as man himself, and feed equally on the fleshy parts of animals, and on grain, and the sweet juices of plants.” P. 5.

Dr. Good's extensive reading and retentive memory enable him to enliven the most common elementary details by interweaving curious, uncommon, or illustrative examples, in almost every page of the work. Thus, while showing that in some animals, as in the zoophytes for instance, the alimentary canal is imperforate, he observes that man himself is sometimes born with this conformation, the office of the natural outlet being vicariously supplied by the urethra, vagina, navel, groin, or other part.

“ The most extraordinary instance of accommodation of this kind which I have ever met with in the collections of medical curiosities, is that of a girl, who, from birth, was imperforate both in the anus, and meatus urinarius ; in fact in the whole division of the vulva : and who to the age of fourteen, when the account was

* Extremes approximate in this as in other instances. Thus the hydatid is a globular membrane, i. e. *all stomach*—and what more or less is the alderman ?

written, had regularly discharged her urine by the breasts after the manner of milk, and her feces by a natural vomiting or rejection from the stomach."* 3.

It is known that Dr. Good's first class, *cœliaca*, contains two orders, *enterica* and *splanchnica*, or diseases affecting the alimentary canal, and the collatitious viscera. *Odontia*, or derangement of the teeth, is the first genus in the first order, and dentition is the first species. Dr. Good introduces a short, but interesting sketch of the natural history of the teeth, before entering on the disorder of teething. We can only make allusion to some points in the treatment of dentition. Dr. Good is an advocate for lancing the gums when there is much irritation, but he thinks the relief is not from the discharge of blood, "but by giving a direct opening to the tooth." In this stage, says he, "if we cannot at once cut directly down upon the tooth, the lancet had better be withheld." In this precept we cannot agree with our author. From very considerable attention to the subject we are quite satisfied that the discharge of even a few drops of blood from the tumid gum gives relief, even if we do not reach the tooth. We therefore have been long in the habit of scarifying the gums repeatedly before the evolution of the tooth, and found that the pain was next to nothing, and the benefit almost certain. We agree with our author that the idea of an indurated cicatrix being left after the use of the gum lancet is quite hypothetical. On the contrary, the recently united edges of the gum, as in all other parts, far more readily give way to the process of absorption than if such division had not been effected.

The cutting of the *dentes sapientiæ* often occasions considerable pain, not only in the jaw, but in the corresponding ear, requiring a very free crucial incision through the callous gum, and sometimes a removal of the tooth.

Our author relates some curious instances of those playful attempts on the part of nature to reproduce teeth at a very late period of life, viz. at the age of 60, 80, or 100. Dr. Good attended a lady who cut several straggling teeth at the age of 74, and at the same time recovered such an acuteness of vision as to throw away her spectacles, and read with ease the smallest print.

The section on toothach (*odontia dolorosa*) occupies nearly twenty pages, and contains a great deal of curious as well as useful information for the student.† In the section on

* *Samm'l Med. Wahrnehmung*. Band. viii. p. 29.

† We have just heard a gentleman remark that he was rather disappointed in not finding *minute* information on a particular subject, for which he con-

odontia stuporis (tooth-edge) there is some ingenious physiological reasoning respecting the close reciprocity of feeling at all times maintained between the teeth and the tympanum, from a union of their respective nerves. Hence the teeth often sympathize with the ear, and are set on edge, it is expressed, by harsh, dissonant, or stridulous sound. Perhaps the best mode of cure is habitual exposure to the cause of the affection, whereby the too delicate feeling gradually blunted. "The grating sound produced by filing a saw was probably at one time harsh and abhorrent to the ears of the sawyer; but by being inured to it, he at length hears it with indifference."

No very clear explanation, as Dr. Good observes, has yet been given of the *tartar of the teeth*. Berzelius considers it to be at first hardened mucus, during the destruction of which phosphate of lime is deposited on the enamel of the tooth. The tartar itself, when analyzed, is found to consist of concrete or dried saliva, hardened by its own earthy materials. If suffered to accumulate too much, it loosens and destroys the gums, thus causing a fetid breath. The daily use of a tooth-brush, with any of the ordinary tooth-powders, is, in general, sufficient to keep down this tartar. If it yields not to these, some of the milder acids may be safely employed—avoiding the oxalic, sulphuric, tartaric, and succinic, for *which four acids only*, the lime of the teeth has a stronger affinity than for the phosphoric with which it is combined. From these therefore we ought sedulously to abstain. If the tartar still bid defiance to the other acids, it must be scaled off by instruments.

Passing over a great many genera and species, we shall stop, for an instant, at Genus v. sp. v. FLATULENCY, a troublesome and obstinate complaint. That air is occasionally secreted from the mouths of the secretory vessels is the opinion of Hunter, and is far from improbable. In many cases, however, it is merely separated from the materials introduced into the stomach, when they are in the act of fermentation from imbecility of the organ, or its consociate viscera. It is, for the most part, carbonic acid gas that is extricated at those times, and is sometimes prodigious in quantity. Nor need we wonder at this; for, by the experiments of Hales, it appears that a single apple, during fermentation,

sulted these volumes. The complaint was unreasonable. For minute information we must consult *monographs*, or distinct treatises. In a system of this, however extensive, we can expect no more than general information and references to other and more elaborate works on the particular subjects discussed. Rev.

will give out more than six hundred times its bulk of air—and many of the vegetables we use are more flatulent than apples. Bitters are but too often inefficient in giving that tone to the stomach and bowels which prevents the generation of gas, and aromatics give only temporary relief by the discharge of flatus, which is quickly replaced. In several distressing cases of this kind, which have lately come under our notice, we have seen considerable benefit derived from the carbonate of iron combined with rhubarb and ginger. We generally exhibit ten grains of the iron, three of rhubarb, and three of ginger, twice or thrice a day, in any convenient vehicle, keeping the patients on plain food, and enjoining them to use but little drink.

Dr. Good, after laying before us a great deal of information on this subject, collected from various quarters, concludes with the notice of two remedies which, he says, not only afford benefit at the time, but have a tonic virtue which tends to correct the disorder radically. The first of these is the tincture of the rose wood, or rhodium lignum of the old writers, made by macerating four ounces of the wood in a pint of spirit. "It proves a warm, balsamic, and pleasant cordial in doses of from twenty or thirty drops to a drachm." The second remedy is the ethereal oil, as it is now called, or oleum vini, as it was formerly designated, and which is found in the residuum of sulphuric ether. It has a strong, penetrant, and aromatic odour, and readily dissolves in alcohol or ether.

"In the current Pharmacopœia of the London College, this anodyne is imitated in the preparation called compound spirit of ether, the only form in which the ethereal oil is employed as an ingredient. For the purpose I am now speaking of, however, it should be dissolved, and in double the quantity contained in the preceding preparation, in the aromatic spirit of ether, the sweet elixir of vitriol of the old dispensaries; in which case it combines its powers with the fragrant and valuable spices of this preparation, and becomes a very grateful carminative and exhilarant." 136.

The section on dyspepsia (gen. v. sp. iii.) is copious, interesting, and instructive. This is justly represented as a hydra-headed monster—"a multiform combination of maladies of which dyspepsia is the general expression." It is a vice having its seat not always or solely in the stomach, but occasionally in one or all of the circumjacent viscera—especially the liver. The etiology of this proteiform malady is ably traced out by our author, as well as its secondary effects on the system at large—especially on the lungs, where it imitates phthisis, and has been well delineated by Dr.

Wilson Philip. The causes may, Dr. Good thinks, be contemplated under two heads—local and general:—"under both which they are still further resolvable into the two opposite extremes of deficient and excessive stimulation."

The *local* remote causes are indulgence in sedative or diluting substances, or stimulating and acrid materials—excesses in eating or drinking—or rigid abstemiousness, and protracted periods of fasting. The *general* remote causes may be classed under the heads of indolent and sedentary lives—intense study, "not properly alternated with cheerful conversation"—immoderate libidinous indulgence—too great muscular exertion—and last, not least, late hours, and spirituous liquors. Our author insists much on the advantages of cheerful conversation, without which, even exercise itself will be of little avail.

"For the mind, accustomed to a certain track of intellectual labour, will otherwise relapse, even while riding or walking, into the same habitual course, be dead to the most fascinating prospects around it, and become exhausted by its own abstraction. And it is to characters of this kind, perhaps more than to any other, that the amusements of a watering-place promise ample success; where the general bustle and hilarity, and the voluntary forgetfulness of care, the novelty of new scenes, and new faces, and new family anecdotes, and the perpetual routine of engagements that fill up the time with what would otherwise be trifles and frivolities, reverse the mischievous order and monotony of the past, break the sturdy chain of habit and association, and give leisure to the worn-out sensory to refresh itself." 153.

But where dyspepsy has resulted from the fashionable follies and dissipation of a town life, a change of residence to the coast, will be a change of place, but not of life.

"A total retreat from the world, the unbroken seclusion of a remote hamlet, the sober society of a few intimate friends, simple meals, and early hours; instead of close and heated rooms, crowded and motley routs, costly feasts, and midnight madrigals, are what are specially called for in this instance, but are not always to be met with in the resort of a watering-place." 154.

The fact is, that London is not the eternal city—at least on the Thames, for she is now alternately on the banks of a river, and the borders of the ocean. Yet we doubt much whether the secluded hamlet and sober society depicted by our author would have much attraction for the fashionable hypochondriac, worn out by unnatural hours, pampering diet, stimulating drinks, and sensual excesses of all kinds. It would be like putting the habitual drunkard at once upon a milk and water diet. They would both be eaten up with

the horrors of their own feelings! Nothing is more fortunate for patients under such circumstances than a smart attack of some acute disease, under which, strange as it may appear, they will better bear the transition to rigid abstemiousness than when in their ordinary conditions of health.

Our author lays down judicious rules for the guidance of the dyspeptic invalid—limiting the stomach to such food as it will most easily digest—quickenning the action of the bowels by gentle aperients—and augmenting their tone by warm bitters and tonics. Magnesia appears to be a very favourite remedy of our author for the correction of acidity—while for the nidorous or fetid eructations the mineral or vegetable acids must, of course, be employed. Dr. Good thinks that charcoal has not lately been used for the purposes in question to the extent it deserves. It is a powerful corrector of putridity—and may be taken in the dose of twenty or thirty grains twice or thrice a day. For the intestinal torpor, nothing, Dr. G. thinks, stands higher than rhubarb uniting an aperient and tonic power. It is often necessary, however, to combine it with such a proportion of extract of aloes, jalap, or colocynth, as may be sufficient to keep up a regular action in the bowels. Ipecacuan, in small doses, is sometimes, but not very generally, useful. “The blue pill will generally answer better,” and it is chiefly, he observes, to be employed where we have reason to apprehend that the pylorus or liver is affected. For gastrodynia, a very common concomitant on dyspepsy, we have often seen advantage from the oxyde of bismuth, in doses of five grains thrice a day. Myrrh is strongly recommended by Dr. Good as a warm tonic for the stomach. When dyspepsy is engrafted on an hysterical or hypochondriacal diathesis, we may indulge, he thinks, in stimulants of a warmer character, as camphor, assafoetida, the alliaceæ, the spicy aromatics, and even capsicum. The quassia, gentian, and columbo, offer the best bitters, if we except the chamomile, uniting a warm essential oil with the bitter. If used in infusion, the vessel should be closely covered, and the menstruum not kept longer than an hour on the flowers. But we must refer to the work itself for many pages of judicious advice respecting medicines, diet, and the employment of time.*

* Dr. Good does not mention the dandelion in this section. We have found it very useful combined occasionally with chamomile, cascarrilla, or rhubarb. It increases the biliary and urinary secretions, has an aperient effect on the bowels, and improves the digestion. We generally use the infusion—three ounces of the sliced fresh root to a pint of boiling water with a little ginger or other spice—sometimes with cream of tartar.

In the section on ileus and colica pictonum, our author has, with his usual industry, collected a great deal of interesting information. We observe, however, in this, as we in many other instances, that Dr. Good has not brought down his pathological researches to the present moment which he might easily have done, and certainly ought to have done. Thus he has not alluded to the able observations of Abercrombie on Ileus—nor to the valuable paper on Ileus in the French Dict. des Sciences Medicales, vol. 1. Of these papers, however, we gave an extended account in the second volume of our quarterly series, for April, 1822, page 613 *et seq.* In the colica pictonum, or rachialgia, as it is termed in Dr. Good's Nosology, he considers the calomel and opium plan of treatment as far superior to any other that has yet been proposed.

We observe that Dr. Good divides cholera into three species—cholera biliosa—flatulenta—and spasmodica. He acknowledges that it is only in the first species that there is any evidence of an *increased* secretion of bile:—in the two last, indeed, there is, he confesses, more proof of compression than increased secretion. We have seen numerous cases of all these species, and we confess that our observations have led us to believe that even the most bilious cholera or bilious vomiting of this country, in autumnal seasons, is not *caused* by an increase of the biliary secretion, the latter only taking place in the course of the disorder principally, perhaps, from the action of vomiting itself. A person take an emetic in perfect health. He first ejects the contents of his stomach—then glairy or watery fluids—after straining a while, bile comes off in greater or less quantity. Whoever has experienced cholera in his own person or narrowly watched it, *from its very commencement*, in the persons of others, will be forced to confess that the succession of events is precisely what takes place in cholera. Nor is this assertion contravened by the descriptions of the best writers, ancient or modern. True it is, Celsus teaches that bile bursts forth both upwards and downwards—*supra infraque erumpit*. Well; but what kind of bile? *primum aqua similis, interdum alba, &c.* Will any modern physician contend that the *white and watery matter* first brought off the stomach are *bile*? We fancy not. The fact is, that while Celsus derives cholera from *χολη* and literally *bile flux*, Trallian considers it as *χολας* and *εμεας*, which is literally *intestinal flux*. Sydenham is generally quoted in support of the bilious theory; but the English Hippocrates does not even mention the word *bile* in the description of the disease: “*Adsunt enim vomitus enormes, ac per*

rum humorum cum maxima difficultate et angustia per alvum dejectio," &c. p. 175. Areteus gives a more minute description of the disease than either Sydenham or Celsus, and he makes no mention of bile at the beginning of the disease. His description is truth itself. "*Supra enim per vomitum erumpunt, quæ in ore ventriculi, et gula congesta fuerant. Infra dejiuntur humores in ventriculo intestinisque nantes. In primis quæ evomuntur aquæ similia sunt:—quæ anus effundit, stercorea, liquida, tetricque odoris sentiuntur. Siquidem longa cruditas id malum excitavit, quo si per clysterem eluantur, primo pituitosa, mox biliosa feruntur.*" Now let us see how the above description agrees with the best modern accounts. PARR expressly says, "the matters voided are at first the remains of the food; and *afterward* bilious fluids." In Rees's Cyclopædia the article cholera, we believe, was written by Dr. Bateman, and is a very excellent composition. It states that "the bowels are seized with griping pains, and the stools, which are at first thin and *watery*, as in common diarrhœa, are passed frequently. The stomach is seized with sickness, discharges its contents, and rejects what is swallowed. In the course of a *few hours* the matter vomited, as well as that which is discharged by stool, appears to be pure bile, and passes off both ways in considerable quantities." Now let any unprejudiced person contemplate these descriptions, and say whether there appears any foundation for the theory which attributes the vomiting and purging, in other words, the disease, to the presence of bile. It is now acknowledged, though the statement was long laughed at, that in the worst forms—that is, in two species out of three, superabundance of bile is quite out of the question—on the contrary, that the biliary secretion seems lessened, and often entirely suppressed. Yet such is the tenacity with which we cling to preconceived doctrines, that because a discharge of bile takes place in the course of one species, (the mildest of all,) we still continue to rank the inordinate secretion of that fluid as the proximate cause of the three, in our systematic works! To us it appears that various causes, many of which we are quite ignorant of, produce an orgasm or violent irritation in the

* We see that Celsus evidently copies Areteus, but not correctly—for Areteus make no mention of bile, at the commencement of the symptoms, and there can be little doubt that Areteus was the practical physician, and not Celsus, who is merely a compiler, and is not generally considered as having been a professional man at all. In fact, Celsus has reversed the description of Areteus, and placed the eruption of bile as the *first* symptom, whereas the Greek author makes it the *last*.

primæ viæ, the natural consequence of which is a discharge, upwards and downwards, of whatever the primæ viæ contain at the time—and that this orgasm continuing, an inordinate secretion of bile takes place, as well as an inordinate gastric and intestinal secretion, which inordinate secretion has nothing to do with the etiology of the orgasm itself—on the contrary, we believe it to be a salutary or remedial effort of Nature to remove the disease or its cause. We grant that, at the times when cholera is most prevalent, there is generally an irritable state of the biliary as well as of the gastric system, and consequently that they are both disposed to fall into violent and irregular action. We cannot regard the three species of cholera, as divided by Dr. Good, in any other light than as three grades of the same disease, differing only in violence and in danger—or rather, we should be disposed to say, that the three species depend on the degree of force or concentration in the exciting cause, whatever that may be ærial or terrestrial, or both combined, which we believe is the case.

Of the epidemic cholera of India, Dr. Good has given as full an account as the documents before the public, and the liberality of Sir James McGrigor in giving Dr. G. access to the army returns, would permit. We do not see that any new light whatever has been thrown on the etiology of the disease during the prevalence of the epidemic, nor has any important novelty or improvement been devised in the treatment.

In the genus *HELMINTHIA*, or *invermination*, as our author emphatically terms it in his own tongue, Dr. Good has, as usual, accumulated a great deal of curious information scattered through hundreds of tomes and ephemeral journals. He combats the doctrine of equivocal generation, so warmly espoused by his favourite ancient philosopher Lucretius. We now, he observes, know that an incipient stage of putrefaction, or a very short quiescence and exposure of animal fluids to a warm atmosphere, is sufficient to load them with animalculæ of some kind or other, “not indeed, by fortuitously converting the constituent and decomposing principles of such fluids into the simple forms of microscopic life, but rather by affording to some few of the myriads of invisible ovula with which the atmosphere swarms, and which it may convey to them the proper nidus, or the quickening stimulus they stand in need of.

“That the atmosphere is freighted with myriads of insect-eggs that elude our senses; and that such eggs, when they meet with a proper bed, are hatched, in a few hours, into a perfect form, is clear to any one who has attended to the rapid and wonderful effects of

what, in common language, is called a blight upon plantations and gardens. I have seen, as probably many who may read this work have also, a hop-ground completely overrun and desolated by the *aphis humuli*, or hop-green-louse, within twelve hours after a honey-dew (which is a peculiar haze or mist loaded with a poisonous miasm) has slowly swept through the plantation, and stimulated the leaves of the hop to the morbid secretion of a saccharine and viscid juice, which, while it destroys the young shoots by exhaustion, renders them a favourite resort for this insect, and a cherishing nidus for the myriads of little dots that are its eggs. The latter are hatched within eight-and-forty hours after their deposit, and succeeded by hosts of other eggs of the same kind; or, if the blight take place in an early part of the autumn, by hosts of the young insects produced viviparously; for, in different seasons of the year, the *aphis* breeds both ways." 293.

The two grand indications of treatment are first to expel or destroy the worms, and secondly, to strengthen the alimentary canal in order to prevent their reproduction. These two indications may sometimes be pursued simultaneously.

"By having the bowels loose, we prevent the accumulation of the slime in which the worms burrow: and if we have reason to believe that such accumulation has taken place, the best plan is to give active purges, as calomel, jalap, scammony, gamboge, or an intermixture of these, for its removal; and having thus, as far as we are able, exposed the naked bodies of the worms to the action of anthelmintics, we should proceed with the latter without loss of time." 313.

The list of anthelmintics is long enough to convince us that no one of them is possessed of any very strong specific powers. Dr. Good has reviewed the principal of them, dividing them into two classes—those which dislodge or destroy by a mechanical action—and those by a narcotic or other internal means. Among the former we may reckon drastic purgatives, including oil of turpentine, tin-filings, crude quicksilver, mild lunar caustic, cowhage, &c. In the latter we may place the male fern, hellebore, tansy, savine, rue, santonicum, tobacco, &c. We think Dr. Good has dealt rather freely with the rectified oil of turpentine. "A child of ten or eleven years old may take an ounce without any evil effect in ordinary cases." We have lately exhibited this medicine to a series of young folks, from three to fourteen years of age, in pretty active doses; and though the ultimate effects were excellent, we had reason to be several times alarmed at the primary operation of the oil—not so much from the catharsis as from the intoxicating power of the remedy.

Dr. Good thinks that there are some medicines which may

be regarded as specific vermifuges—that is, as acting on the worms by some simple quality which proves highly poisonous to them without affecting the bowels. The chief of these he considers to be the bark and shoots of the cabbage-tree (*areca oleracea*) and the male fern. The former has been used in infusion, syrup, or powder. It only kills the worms, and consequently it is necessary to exhibit purgatives afterward to bring them away. Of the male fern Cullen entertained no great opinion, though it is still extolled in Germany.

The section on “*Proctica Spasmodica*,” or “*Spasmodic Stricture of the Rectum*,” is defective in recent information—a defect which we fear we shall often have occasion to regret in the course of our survey of these volumes. In the 5th volume of the Medical Transactions of the College, Dr. Baillie has given a description of this disease, which is quoted freely by Dr. Good, who relates an interesting case that fell under his own observation, and which has now continued six years, without any material benefit from medicine. Our readers are aware that we have given in our last number a full account of M. Boyer’s able paper on this subject, published more than four years ago in the *Journal Complémentaire*, and noticed in most of the English journals of that time. It is a great pity Dr. Good did not take that paper for his text, as not only affording a more correct view of the disease pathologically, but as pointing out an operation which almost invariably cures the complaint—We mean a division of the sphincter of the gut. We have seen but one exquisitely marked case of the disease, in a medical gentleman, 42 years of age, of great mental and corporeal activity, but long subject to hæmorrhoids. It precisely answered the description by Drs. Baillie, Boyer, and Good; and after harassing the patient for more than two years, it has nearly given way, at least it now gives no pain, by a constant and unremitting use of tepid water enemata before every motion. This is a far better plan than giving laxatives by the mouth, and completely secures the irritable stricture of the sphincter from the annoyance of the passage of hardened *æces*—a source of irritation which inevitably keeps up the original disease. On this subject, however, we have said enough in our last number.

On the “*Proctica Callosa*,” or callous stricture of the rectum, Dr. Good has mustered as much respectable information as could be compressed in the short space of six pages, which is all that is dedicated to the complaint. We do not see any thing either novel or objectionable in this section.

The fifth species of genus xii. is "*Proctica Marisca*," the author's designation of hæmorrhoids. It is divided into four varieties, the *cæca*, *mucosa*, *cruenta*, and *caruncularis*. Rather better than ten pages are devoted to the subject of piles. We think Dr. Good has not investigated this disease in proportion to its importance—especially in a constitutional point of view, of which indeed he takes very little notice, excepting as it is connected with a gorged state of the liver. We are sorry that Dr. Good did not consult the very excellent monograph of Dr. Montegre of Paris, inserted in the 20th volume of the *Dict. des Sciences Medicales*. This work was reviewed by Sir Charles Morgan, in the 53d number of the *Ed. Journal*, and fully analyzed by us in the 2d number of our Quarterly Series for October, 1818.

The treatment of hæmorrhoids divides itself naturally into local and general means. The general means are such as correct the morbid state of the constitution, and especially the digestive function, which is very commonly in fault. General alteratives—the blue pill, sulphur and supertartrite of potash, and electuary of senna, are the best medicines, with or without taraxacum or sarsaparilla. But a great deal of attention should be paid to the state of the constitution generally in order to discover whether there be erratic gout, or other constitutional diathesis; or whether the hæmorrhoidal functionary movement be vicarious of some other disease. These things should be well weighed before we attempt to repel the anal determination by astringents, as nutgalls, &c. or by the local application of cold, whether in the form of glysters or externally. In this complaint, as in spasmodic constriction of the sphincter, no local means can compare with the employment of lavements, so as to secure the parts from irritation in the passage of the *scæces*. This process alone would go far to cure the most obstinate cases. Where there is nothing in the constitution to contra-indicate the measure, we have always found very quick and effectual relief from the following ointment, spread thick on a piece of lint, and kept on the painful and protruded piles by means of a handkerchief or T-bandage.

℞. Cerat. superacet. plumb. 3j.
 Pulv. gallarum . . . 3j.
 —opii ʒj. m. ft. unguentum.

In several instances we have found very good effects from the local application of port wine to the hæmorrhoidal tumours, especially where there is some degree of procidentia ani. An important measure in mitigating the pains of hæmorrhoids is pressure. No pile, in fact, ought to be allowed

to protrude, and thus become strangulated. On the very first appearance of an hæmorrhoidal tumour it should be pressed back within the sphincter, and prevented from protruding by a very tight bandage and pad. By this application we have enabled men to walk about with ease, in a few minutes, who were before unable to get off the sofa. When the hæmorrhoidal attack is over, and not before, bougies may be employed.

The section on proctica exania, or procidentia ani, is replete with information. Dr. Good, however, has not apparently availed himself of an able paper on relaxed rectum by Mr. Chevalier in one of the late volumes of the *Medico-Chirurgical Transactions*.*

The second order of the present class is entitled "*SLANCH-NICA*," or diseases affecting the collatitious viscera. It comprises four genera,—*Icterus*,—*Melæna*,—*Chololithus*, (*gallstones*)—*Parabysma* (*visceral turgescence*.)

The inquiry respecting the derivation of various names given to *icterus* by the ancients, is not worth our notice; and the question as to the real or exact use of the bile, will not, we fear, be settled for a few years to come. We do not see, however, how this question can be very intimately connected with the pathology and treatment of *icterus*.

The immediate cause of jaundice, all must allow to be, an obstruction to the flow of bile, from the liver to the intestines—its retrograde passage into the blood, whether by absorption or regurgitation, being merely an epiphenomenon which has given name to the disease. The most simple cause of obstruction, though we apprehend it is a very frequent one, is viscosity of the bile itself clogging the ducts through which it passes. This form generally comes on more slowly and insidiously than other forms, with the usual symptoms of langour, dyspepsy, yellow urine, torpid bowels, and clay-coloured stools. The eyes and then the skin assume the yellow tinge, there being little or no pain in the right hypochondrium, and rather a nausea than actual sickness of stomach. Vomiting, by antimonial emetics, in an early stage of the disease, is often of essential service in emulging the biliary ducts, and clearing away obstructions to the free discharge of the bile. Our author relates some cases, in detail, illustrative of this species of *icterus*, which are interesting enough in themselves, but we think they are rather misplaced in an elementary work, which should very rarely occupy space with the circumlocutory details of individual

* See p. 465 of the 1st volume of the *Analytical Series* of this Review.

cases, unless of a very rare or extraordinary nature. We may just remark here that Dr. Good occasionally commits what we might call pleonisms of expression, and which we did not expect in so learned and classical a writer. For instance, at page 367, we have this sentence—"The attention of the patient's friends was directed exclusively to the *organ of the lungs*." We ask what is the *organ* of the lungs but the lungs themselves? Should it not have been the "*organ of respiration*?" Would it not be improper to say, "the organ of the liver," or the "*organ of the stomach*?"

The 2d species, *Icterus Chololithicus*, or jaundice from gall-stones, is so closely connected with the genus *chololithus* itself, as to have rendered it hardly worth Dr. Good's while to separate them. Indeed he only gives the definition of the 2d species, and then refers to the genus gall-stone.

We next come to *Icterus Spasmodicus*, where, according to our author, "the course of the bile is obstructed by a spasmodic constriction in the course of the bile-ducts." Before making any remark of our own we shall give Dr. Good's description of the symptoms.

"The disease is ushered in by a sense of fulness at the stomach, accompanied with great languor and nausea; a violent pain at the pit of the stomach soon succeeds, with an almost incessant sickness, and an utter inability of retaining either food or medicine of any kind. The pain grows intolerable, and shoots towards the left shoulder, or spreads round the loins, and girds them as with a cord. The epigastric region is greatly distended, and cannot endure the pressure of the hand; while the pulse exhibits little variation.

"The bowels are for the most part costive and moved with difficulty; the urine soon evinces a deep saffron tint, and the sooner in proportion to the violence of the other symptoms, and especially of the retching; and the surface of the body, and especially the fine sclerotic coat of the eye, assumes the same livery. And if the disease become chronic, the yellow die is not confined to the skin or even to the fluids, but pervades every part of the body, the most compact as well as the most porous; so that the pericardium, the heart, the peritoneum, the meninges, the substance of the brain, the cartilages, and even the bones, are clothed with the common colour. Stoll, Lieutaud, Bartholin, and Morgagni, give various examples of this; though the last observes, that a yellow tinge of the brain is a rare occurrence." 374.

Now Dr. Good acknowledges that these are the symptoms of *chololithus means*, or passing gall-stones; but, says he, "the causes and mode of treatment are different." Yet Dr. Good does not offer us any proof that the causes are different—and we venture to affirm that every practical physician, on coming to a patient with the foregoing symptoms, would

pronounce the jaundice to be from *biliary concretions*, of whatever composition, obstructing the egress of bile from the liver, and thus causing all the phenomena above described. We believe that the ducts of the liver are occasionally constricted from spasm, but that the above-mentioned symptoms never occur from such cause alone. If spasm continues long enough to give time for biliary concretions to form, then we have the painful phenomena above described taking place during their expulsion.

Dr. Good believes that jaundiced patients occasionally see objects yellow. This was the case in his own person ; but he supposes it only happens when the humours as well as the sclerotic coat of the eye are tinged. The case is certainly a very rare one, notwithstanding the assertion of Lucretius that it is common.

“ Multaque sunt oculis in eorum denique mixta,

“ Quæ contage suâ palloribus omnia pinxit.”*

The following is our author's *methodus medendi*.

“ In the treatment of this species, emetics and cathartics, so highly beneficial in icterus *cholæus*, are of doubtful advantage. Where we have strong reason to suspect that acrimonious materials have formed a lodgment in the ducts or alvine canal, they will prove useful by evacuating them : but in all other cases they must add to the disease by increasing the irritation, and should give way to blood-letting, if the patient be in vigorous health, succeeded by opiates, the warm bath, or warm and anodyne fomentations applied to the epigastrium. The opiate should be given in pills, for the stomach will often for many hours reject liquids of every kind. Two or three grains of the extract of opium may be tried at first, and if this be insufficient, the same or even a larger dose should be repeated half an hour afterward, and continued till the pain abates. Blistering the seat of pain has been advised by many ; and I have often tried it, but without any decided effect. If useful at all, it is rather in preventing a return of the paroxysm than in shortening or mitigating it when present ; and will hence be most advantageously resorted to in the interval.” 377.

Over biliary concretions we imagine we have very little power. Their expulsion is a work of Nature ; but there are many remedies which prevent the formation of these obstructions by keeping up a due and a healthy secretion of the liver. Of these, the principal are gentle mercurial aperients—the taraxacum—and the nitro-muriatic acid bath—“ a remedy which,” says Dr. Good, “ has, of late years, excited great attention, and is now surmounting an ungenerous prejudice that was at first very extensively raised against it.” We have

* De Rerum Natura, IV. 333.

had several proofs in our own practice, of its powers as a preventive of biliary obstructions, and Dr. Good adds his testimony to the same effect. "In two or three instances the advantage has been decisive; and the patients, who had hitherto been seldom two months without a severe return of the complaint, have entirely escaped, and apparently lost, the morbid predisposition." In a few cases it entirely failed in our author's hands.

Of the 4th species of jaundice—that resulting from a scirrhous, tuberculous, or other diseased state of the liver itself, we need say little. The jaundice is a mere symptom or effect of the disease, which too often sets medicine at naught. "*Mussabat tacito medicina timore.*" We shall have another opportunity of alluding to this subject when we come to hepatitis.

The Genus (II.) *Melæna*, is characterized thus:—"The colour of the eyes and skin yellow-green, fuliginous, leaden or livid; the dejections pale, occasionally dark-coloured; anxiety; depression of spirits." This is one of those diseases which have puzzled nosologists as to its place in their systems. Dr. Cullen has omitted it altogether in his *Synopsis*—briefly noticed it in his *First Lines*, under *hæmatemesis*, and, also, *diarrhœa*—and afterward introduced it into his "*Catalogue of Diseases Omitted*, but which ought not to have been Omitted." It is divided by Dr. Good into two species—the *cholea*, and *cruenta*. The first, which is the black and green jaundice of authors, is thus defined. "Occasional dejections of dark or pitchy bile, intermixed with the *fæces*; occasional vomitings of yellowish-green and acid colluvies: great languor; often vertigo; hypochondria free from pain, but tender upon pressure." We greatly fear, that Dr. Good has not entirely settled the question of its pathology as follows:

"The liver is here evidently diseased in its structure, and a morbid deep-coloured bile, fulvous, greenish, or fuliginous, is secreted, instead of the natural excretion; from general hebetude and a want of the ordinary propulsive power, it lingers in the biliary passages, if it get into them at all; the finer part of the fluid is first absorbed, and afterward the grosser; and what remains becomes still more viscid, more stagnant, and of a deeper hue." 389.

The green jaundice occurs more frequently in men than in women—is generally accompanied with disease of the liver, and tenderness on pressure there—pulse natural, or slower than in health—stools irregular, being sometimes pale, sometimes pitchy—urine deeply loaded—appetite irregular. The disease is generally fatal—though its progress is sometimes slow, the patient dragging out a painful existence for three, four, or five years. The treatment is undecided. Dr. Bail-

lie, who has written a valuable paper on this subject, he has found neutral salts taken daily as an aperient or laxative use; but of a radical cure he seems to despair. Good has found mercury, combined with antimonials, "beneficial," particularly the plumber's pill. To these may be added, alkalies and bitter tonics, and the nitro-mucous acid, or chlorine bath.

The second species, *Melena Cruenta*, or "black vomit," is thus characterized by Dr. Good. "Occasional vomiting and dejections of grumous blood, intermixed with greenish coloured bile; pungent, tensive pain in both hypochondria; compressive pain at the pit of the stomach, and faintness."

"In this species the organs subservient to the formation of blood are in a more debilitated and decayed condition than in the first; and it may hence be contemplated as a disease composed of *melæna cholæa* and *hæmatemesis passiva*, or passive hæmorrhage from the vessels of the liver, spleen, or both." 392.

We think it is far from certain what is the source of the melenic discharge. Dr. Good has quoted Drs. Hall and Marcard, but he has not noticed a valuable paper on this subject by Dr. Cheyne, published in the first volume of the *Hospital Reports*, and of which we gave a full account in the first volume of our *Quarterly Series*, for October, page 200 *et seq.* Dr. Cheyne, in that paper, draws attention to the profession to the "alternate excess of action in the mucous and serous membranes," by illustrative examples of the transference of disease from the one to the other of these structures. The disease, whether symptomatic (as in the black vomit of fever) or idiopathic, is extremely dangerous, and no fixed principles of treatment are known.

Genus III. is *Chololithus*, or gall-stone, the symptoms of which are those of *icterus spasmodicus*. In the disease before us we find certain portions of the bile indurated, assuming a concrete, often a crystallized form, some of a laminated structure, evincing a tendency toward crystallized rays in the centre, with concentric laminæ to the surface. Fourcroy supposed these concretions to consist of resinous matter, combined with a peculiar oil, and a quantity of albumen, forming three of the constituent principles of bile. All these principles have been denied by Berzelius, who has discovered that bile becomes resinous only in the process of experiment, by supersaturating with acids, while the material hitherto regarded as albumen is nothing more than a small portion of mucus furnished by the gall-bladder! We fear that many supposed constituents of bile are mere chimeras.

of animal and other matters are the "products of experiment," the same as in the above instance. We know, however, that gall-stones are inflammable—that they are found of all sizes in the gall-bladder and ducts—that they are passed with great pain—that they will sometimes lie quiet in the cyst for years, without inconvenience—and that they will occasionally endanger or even destroy life, if lodged long in the ductus communis. Of the treatment we have already spoken.

"Our best and wisest exertions, therefore, must be of a palliative kind, with a view of easing and quickening the passage of the gall-stone. We have no direct means, however, of doing the last: and all we can hope to accomplish is that of rendering a little collateral assistance to the expulsive efforts which are made by nature herself. The duct becomes dilated by the circumambient pressure of the concretion as it gradually passes forward, urged on by the same action that propels the bile in a state of health. Vomiting, therefore, by compressing the whole abdominal viscera, and, particularly, the full and distended gall-bladder and biliary vessels, may afford one mean of pushing forward the concretion: but a gentle force, and consequently gentle vomits, will promise fairer than those which act violently. Dr. Darwin affirms, that in two instances he saw from thirty to fifty gall-stones voided after taking only an oil vomit. If the patient be of tolerable vigour, and inflammation be apprehended, bleeding should precede the exhibition of emetics. Cathartics, by exciting the action of the intestines, and directly stimulating the mouth of the common bile-ducts, contribute, also, to excite action through its entire range, and thus farther favour the expulsion of the concretion. And as we often find its passage evidently opposed by spasmodic constriction, opium, given very freely and repeated every hour or two, and relaxing the skin by fomentations or the warm bath, will in such cases be of essential service. Horse exercise cannot always be made use of: but where it can be submitted to, it is one of the best auxiliaries we can recommend." 402.

The last genus in the present order is *Parabysma*, hitherto denominated *physconia*, but now exchanged for a genuine Greek term, (from *παρὰ* and *βύσμα*,) signifying morbid congestion, coacervation, or infarction—"a monstrous race of diseases," as our author expresses it, "which we can rarely hope to conquer, unless we have an opportunity of strangling them in their infancy." This genus comprehends enlargements of the liver, spleen, pancreas, mesentery, intestines, and omentum, together with a complication of some or several of these. We shall notice but one or two of them. The *parabysma hepaticum* arises from various causes, and is attended with a diversity of symptoms, which but seldom enables us to ascertain the exact nature of the swelling ante obitum.

Speaking of the species *parabysma hepaticum*, *helminthicum*, or *hydaticum*, Dr. Good observes—

“As this species of the *parabysma* depends almost entirely on an atony of the liver, the intumescence increases in many instances in proportion to that atony, and particularly when debility of the liver is combined with a general debility of the entire system. And hence the liver is frequently known to enlarge in proportion as every other organ becomes torpid and decays. On which account the liver is often found of an enormous size in dropsical patients. Mr. Gooch gives a case, in which, during dropsy, it acquired the monstrous weight of six hundred and twenty-eight pounds.* Baldinger reports another instance in which it reached six hundred and twenty pounds;† and Bonet, a third, in which it weighed only two pounds less.”‡ 408.

These amazing enlargements of the liver have escaped our notice, and we have not Gooch's or Baldinger's cases to refer to. On turning to Bonetus, we observe that lib. 1. sect. xviii. is “*de oculorum affectibus*,” and consequently there was no hope of finding enlargements of the liver there. The 16th section of the third book, however, “*de tumore hypochondriorum*,” presents us with many remarkable instances of hepatic intumescence, of which the following, from the language employed, would appear to be the most extraordinary which ever occurred to Bonetus. “*Cum itaque opus agrederer, et circa parenchyma hepatis, tumoris indagandi gratia occuparer, illud cum stupore et admiratione tam vastum ac mole ponderosum videns adstantibus monstro, qui perterriti vix oculis fidem habebant. De pondere autem certior fieri volens, monebam chirurgum ut extraheret, et totum scirrhosum repertum, pendeat libras xiv. civiles.*”—*Lib. III. Sect. xvi. Obs. 3.*

We do not, for a moment, question the accuracy of Dr. Good; but when we consider that a liver, of the size noticed in the extract, must have weighed nearly three stone more than the *whole* of Lambert, “the *greatest* man in England,” as the bills facetiously expressed it, we cannot but doubt exaggeration on the part of the original narrators.

We shall not notice the *parabysma splenicum*, as a professed work on diseases of the spleen is in the hands of one of our coadjutors for early review. And here we must close our first article on the important work before us. The principal defects which we have noticed in this extended publication are the two following:—1st. Dr. Good has not, on

* Med. and Surg. Obs.

† N. Magaz. Band. vii. p. 276.

‡ Sepulcr. Lib. I. Sect. xviii.

several occasions, brought down his pathological information to the most recent periods—a duty incumbent on every one who undertakes a work of this description. 2dly. He occasionally introduces obsolete, irrelevant, or useless materials, when the paramount object ought to be to fill every point of space with the very best, and nothing but the best portions of knowledge. With these trifling defects, which another edition will easily rectify, we have no hesitation in pronouncing the work, beyond all comparison, the best of the kind in the English language. With the naval, the military, the provincial, and the colonial practitioner, the work before us ought, at once, to supersede the unscientific compilation of Dr. Thomas—and it will do so.

VIII.

A Review of some of the general Principles of Physiology, with the Practical Results to which they have led. By A. P. W. PHILIP, M.D. F.R.S. Edinb.

DR. PHILIP has laid before the public a paper with the above title, in the three last numbers of the *Journal of Science* edited at the Royal Institution. As it contains a retrospection of the various physiological investigations of its author, we shall take this opportunity of laying before our readers an enumeration of the physiological points ascertained by his experiments. From the nature of the paper, however, and the condensed style in which it is written, it is impossible to follow the usual plan of analysis in giving an account of it. We shall therefore lay before our readers only a statement of the facts with the general inferences to which the author has been led, and these we shall generally give in his own words. In this way we think we can best convey to the reader a distinct and correct view of the contents. Before proceeding farther, it is necessary to call the reader's attention to the sense in which Dr. Philip uses the term *vital principle*, the vague signification of which has led to much inaccurate reasoning. In the commencement of his paper he defines it in the following manner, and afterward particularly requests that his definition of it may be kept in mind.

“Both the animal and vegetable world differ from inanimate matter, in affording a peculiar class of results when impressed by other agents, whether chymical or mechanical. The quality on

which the peculiarity of these results depends, has been termed the vital principle. Whether this principle be something superadded to bodies, or only a peculiar arrangement of their constituent parts, we have no means of ascertaining. The fact is, that it bestows on them certain properties. It is essential that its name should convey this fact, and no more." 97.

It would appear from the experiments of Haller, that the heart is wholly independent of the nervous system ; why, then, it was justly asked, is it supplied with nerves, and influenced by the passions ? The first physiologists of Europe, Fontana, Procsaska, Soemmering, Bekrends, Earnest Platner, Winslow, Winkle, Johnson, Unzer, Levat, Pessinger, Scarpa, Bichat, Le Gallois, and others, have in vain endeavoured to reconcile these apparent contradictions. The committee of the Institute of France conclude their report on the experiments of Le Gallois in the following manner :—

" The foregoing, the report continues, is a short but faithful account of the principle systems by means of which authors have, since the discovery of the circulation of the blood to this day, attempted to explain the motions of the heart. On taking a general view of those invented before Haller, we remark, that in all of them the nervous power is considered in one way or other as one of the conditions essential to the production of the motions of the heart, and it is always and only in the brain that they place the seat of it. The cardiac nerves therefore had a determined use in all these systems, and one could easily understand why the heart is subject to the empire of the passions : but it was impossible to explain why the circulation continues in acephalous animals, and why in experiments on animals the interruption of all communication between the brain and the heart does not stop the motion of the latter. Since the time of Haller, irritability has been the basis of all these systems. In regarding that property as essential to the fibre, and independent of the nervous influence, the circulation in acephalous animals and the different phenomena observed in the experiments alluded to, present nothing that is not easily understood ; but the use of the nerves of the heart, and the influence of the passions on that organ become inexplicable. The necessity of removing these difficulties has produced two parties among the supporters of irritability. The one, zealous favourers of the doctrine of pure irritability, called to their aid the most improbable hypotheses, and all their efforts have only served to prove how difficult it is to support the cause they espouse. The other confounded the nervous power with irritability, which they consider as one of the functions of that power ; but they have been obliged to admit, either with respect to the seat or the mode of existence of the nervous power, conditions, which by their own confession are far from being demonstrated, respecting which they are not agreed, and which, in the application they make of them to the motions of the heart, either do not wholly remove the old difficulties, or create new ones." 105.

M. Le Gallois imagined, that he had removed the difficulty by proving that the power of the heart is wholly independent of the brain, and derived from the spinal marrow; and the Committee of the Institute, after seeing his experiments repeated, admitted his conclusions, and published a long memoir in support of them; declaring them to be the most important which had been promulgated since the time of Haller.

Dr. Philip has pointed out the insufficiency of the grounds on which M. Le Gallois and the Committee founded their conclusions, and has demonstrated, by experiment, that the power of the heart is as independent of the spinal marrow as of the brain. He has also, it is generally admitted, removed the difficulties in question, by showing, by direct experiment, that although the powers both of the heart and blood-vessels are equally independent of every part of the nervous system, they are every where subjected to the influence both of the brain and spinal marrow. He has also demonstrated, by the 32d Experiment in his *Inquiry into the Laws of the Vital Functions*, that the power of the muscles resides in themselves, and, consequently, that any nervous influence remaining in them after the division of their nerves, is not the cause of their remaining excitability, as the opponents of Haller advanced in opposition to him. Dr. Philip adds,—

“The foregoing facts afford an easy solution of the difficulties stated in the report of the Committee of the Royal Academy of Sciences. The heart continues to act for some time after it is removed from the body, and performs its functions in the fœtal state, when no brain, and, as the committee ought to have added, no spinal marrow has existed, because it has no direct dependence on any part of the nervous system. The heart is supplied with nerves, and subject to the influence of the passions, because, although independent of this system, it is capable of being influenced through it.” 109.

By the whole of Dr. Philip's experiments on this subject, he has pointed out that the difference in the nature of the muscles of voluntary, and those of involuntary, motion, is not, as Haller maintained, that the one is subjected to the command of the nervous system, while the other is placed beyond it; but that, both being subjected to its influence, this difference consists in its affording the sole stimulus of the former, but only an occasional stimulus to the latter class of muscles. Dr. Philip observes,—

“Much has been said of the cause of the one set of muscles being subjected to the will, while the other is independent of it; but if the mind be freed from preconceptions, we can surely be at no less to account for this difference, when we know that the muscles of involuntary motion are all exposed to the constant, or constantly renewed action of stimuli over which the will has no power; while the sole

stimulus of the muscles of voluntary motion is whole. Besides, the action of the former muscles produces an effect. We will to move a limb, not to excite a muscle to handle, for example, and on trial find that we can excite, but there is no act of volition which could be performed by the medium of the heart and blood-vessels. If we handle, the muscles of the fingers, of course, could never be subject to the will. Few have any command over the external ear; and it deserves to be remarked, that the rectum and bladder, the only internal organs which are not accomplishing an end desired. It seems unnecessary what has been said, that the ganglions by no means influence of the brain and spinal marrow in its course of involuntary motion, as some have supposed." 1

Dr. Philip prosecuted his inquiries into the relation of the muscular and nervous systems, much farther than he attempted to go, and has, by various experiments, shown that the nervous influence is supplied to these different parts of muscles from different sources. To the muscular motion, it is supplied from the several parts of the brain and spinal marrow from which their nerves originate. To the muscles of involuntary motion, he has made an extensive set of experiments, it emanates from the brain and spinal marrow, through the interganglions, which are thus shown to be the mediating the influence of every part of these organs on all those parts which participate the interganglionic nerves. The use of the ganglions is thus shown, which could not, of course, have been concluded, was demonstrated, that the parts supplied by these nerves share the influence of every part of the brain and spinal marrow. Dr. Philip remarks,—

"We may easily conceive why the muscles of voluntary motion are excited when those parts of the brain or spinal marrow which they receive their nerves are stimulated; but it is more difficult to account for the heart and other organs of involuntary motion being subject to the influence of every part of the brain and spinal marrow. We cannot suppose that they receive nerves from every part of them. We know, indeed, that no organ does receive nerves from every part of the brain and spinal marrow. It seems to be the state of the question. We know, however, that every part of the brain and spinal marrow is influenced by every part of the brain and spinal marrow, by small parts of them. In the latter instances, we see that proceeding from those small parts the nerves of the part which they supply, namely, where the part is influenced by the brain and spinal marrow, we do not see nerves proceeding from all parts of these organs to the part influenced. We see, however, that every part of the brain and spinal marrow receives nerves from a chain of ganglions to which all parts of them are sent. It is, therefore, evident

periments, that the nerves issuing from ganglions convey to the parts, to which they send nerves, the influence of all the nerves which are received by these bodies." 266.

Dr. Philip then ascertained, by means of experiment, on which alone he has founded all his inferences, that the influence of every part of the brain and spinal marrow is thus combined for the purpose of effecting the secreting, and other assimilating processes, which he has shown, are deranged, if the influence of any considerable part either of the brain or spinal marrow be withdrawn, while, at the same time, he pointed out, that all the parts supplied with ganglionic nerves are, more or less, directly subservient to these processes.

Dr. Philip continues,—

"Thus, we perceive the necessity of every part of the function which the ganglions appear to perform. A combination of the whole nervous influence is necessary to the due formation of the secreted fluids: and that there may be, under all circumstances, both a due supply of the fluids to be acted upon, and a due removal of those prepared, whether for the functions of life, or for the purpose of being thrown out of the system, it is necessary, as appears from what has just been said, that the powers which convey all these fluids should be subjected to the influence by which secretion is performed. This function, it is evident, requires a more regular supply of fluids than could have been obtained, had the usual action of the vessels depended on the nervous system, which is subject to continual variation; but had not this system been capable of influencing the vessels, not only no change in it could have influenced the flow of secreted fluids, but every occasional increase of the influence of the nervous system, supplied to secreting surfaces, finding no increase of fluids to act upon, would necessarily have excited disease. Thus, it is requisite that the power of the sanguiferous should be independent of the nervous system, yet capable of being influenced by it; as from direct experiment, we have just seen, it is found to be." 274.

By the experiments on this subject brought into comparison with others, he has shown that, the processes of secretion and assimilation, as well as that process by which animal temperature is supported, are the results of the action of the influence supplied by the nervous system, on the circulating fluids. He remarks,—

"Here a question of great importance in the animal economy arises. As it appears, from the experiments just referred to, that the nervous power is equally essential with the circulation of the blood, for maintaining the functions of secretion and assimilation, what are the parts they severally perform in these functions? It is evident, that the extreme parts of the sanguiferous and nervous systems are connected in a way very different from that in which these systems are connected in other parts. The heart and vessels of circulation.

we have seen, can perform their function after the influence of the nervous system is withdrawn. The function of the secretory vessels immediately ceases on the interruption of this influence. We suppose, therefore, either that the influence of the nervous system bestows on the extreme vessels the power of separating the elementary parts of the blood, or that the vessels are so constructed as to convey the fluids to be operated upon by this influence.

"Experiments, to which I have already referred, prove that the most minute vessels which can be seen by a powerful microscope in the web of a frog's foot, are independent of the nervous system. The motion of the blood is as rapid, and the circulation presents precisely the same appearance after as before the destruction of the brain and spinal marrow. If the power of secretion had been lost by the interruption of the influence of the nervous system, would not this have necessitated some change in the distribution and motion of the blood in the web? The conclusion from these experiments is supported by others. In those in which the secreting power was destroyed either by the division of the eighth pair of nerves, or the destruction of part of the spinal marrow, there did not necessarily result a defective supply of fluids. In the stomach they were as copious, sometimes more copious, than usual; and in the lungs was almost always the case. The fault was not that a due change on them had not been effected. Were the vessels of circulation to possess no powers but the elastic and muscular, or what in many of its properties resembles the vessels of secretion, Can we suppose, that the vessels of secretion, which are a continuation of those of circulation, all at once assume a different nature; or is it at all consistent with our knowledge of the phenomena of chymistry to suppose, that by any influence just mentioned, or indeed any that can be supposed to be exerted on the vessels, could be enabled to separate and re-combine the elementary parts of the blood? The first of the above positions, if set aside, it seems a necessary inference from the experiments referred to, that in the function of secretion, the vessels are so constructed as to convey the fluids to be operated upon by the influence of the nervous system." 272.

With regard to the temperature of the animal, Dr. Philip makes the following observations,—

"It appears, from experiments above referred to, that the destruction of any considerable portion of the spinal marrow does not destroy the function of secreting surfaces. Together with this it is always found to lessen the temperature of the animal, more or less, according to the extent and importance of the part destroyed. Several years previously, Mr. Brodie, in the Croonian Lectures, gave an account of experiments which led to the inference, that the maintenance of animal temperature is under the influence of the nervous system."

* *Exper. Inquiry*, p. 161, *et seq.* second edition.

the nervous system, and in the Philosophical Transactions of 1812, he relates additional experiments, tending to strengthen this inference. The experiments related in the inquiry just referred to, seem in a striking manner to confirm the opinion of Mr. Brodie. He found that poisons, impairing the vigour of the nervous system, impair the temperature. It appears from my experiments, that lessening the extent of this system, by destroying part of the spinal marrow, has the same effect.

"Thus, it follows, that the temperature of the animal body depends on the state of the nervous system; but many observations point out that it depends also on that of the powers of circulation. When the power of the heart and vessels is greatly impaired, so that the motion of the blood languishes, the temperature falls. If by exercise, or the use of stimulants, we increase the action of the heart and vessels, the temperature in the same proportion rises. When there is a natural defect in the organs of circulation, and particularly when this defect is such as prevents the blood passing through the lungs, with the freedom necessary to its healthy state, the temperature is found below the natural standard. The reader may consult a paper on this subject, by Mr. Earle, in the seventh volume of the Transactions of the Medico-Chirurgical Society, in which there are many excellent observations. As we proceed, we shall find proofs founded on direct experiments, that the temperature depends on the state of the circulation, and particularly on the passage of the blood through the lungs, which to detail here, would too much anticipate some of the other parts of the subject.

"Whether caloric be a substance, or as some of the first chymists of our time are inclined to believe, only a certain motion of the particles of bodies, it is of course foreign to this paper to inquire; but it appears from the foregoing observations, and will, I think, appear still more strikingly from those I shall have occasion to add, that the maintenance of animal temperature must be ranked among the results of the action of the nervous system on the blood. It is on this account that I have elsewhere said, *that if caloric be regarded as a substance*, its evolution in the animal body must be ranked with the secreting processes; the definition of secretion, I conceive, being the evolution of a *tertium quid*, in consequence of that action." 275.

Dr. Philip maintains, that nerves are only capable of conveying impressions to and from the brain or spinal marrow, and, consequently, that these organs are concerned in all cases of sympathy; there being no evidence that impressions are ever communicated from one nerve to another, independently of the intervention of one of them, "a position," he adds, "farther illustrated by the able investigations of Mr. Charles Bell, which have afforded new and important views of the distributions and uses of certain nerves."

Dr. Philip has devoted many experiments to the ascertaining the line of distinction between the nervous and sensorial

systems, which have hitherto been confounded, and has shown, experimentally, that, as the muscular power can exist after the influence of the nervous system is withdrawn, this influence can exist, and is capable of all its functions, after the sensorial power is withdrawn.

It appears, from his experiments on this part of the subject, that the muscular, nervous, and sensorial powers have no direct dependence on each other; yet are all so connected in the more perfect animals, as to be incapable of long surviving each other. He has pointed out that it is through the medium of respiration that the muscular and nervous depend on the sensorial power, this being the only vital function to which the sensorial power is necessary, and the first which fails in dying in consequence of the sensorial power being the first which is withdrawn. Dr. Philip remarks,—

“M. le Gallois finds a great difficulty in explaining why respiration should cease on the removal of the brain.

“‘Il est donc certain que la vie de tronc n’a son principe immédiat ni dans le cerveau, ni dans aucun des viscères de la poitrine et de l’abdomen; mais il ne l’est pas moins, que tous ces viscères sont indispensables à son entretien. Or, en considérant sous quel rapport ils le sont, les faits énoncés plus haut prouvent évidemment que, quant au cerveau, les phénomènes mécaniques de la respiration, c’est-à-dire, les mouvemens par lesquels l’animal fait entrer l’air dans ses poumons, dépendent immédiatement de ce viscère. Ainsi c’est principalement en tant que l’entretien de la vie dépend de la respiration qu’il dépend du cerveau; ce qui donne lieu à une grande difficulté. Les nerfs diaphragmatiques, et tous les autres nerfs des muscles qui servent aux phénomènes mécaniques de la respiration, prennent naissance dans la moëlle épinière, de la même manière que ceux de tous les autres muscles de tronc. Comment se fait-il donc qu’après la décapitation, les seuls mouvemens inspiratoires soient anéantis, et que les autres subsistent? C’est là à mon sens, un des grands mystères de la puissance nerveuse; mystère qui sera dévoilé tôt ou tard, et donc la découverte jettera la plus vive lumière sur la mécanique des fonctions de cette merveilleuse puissance.’

“This difficulty appears to me to arise from M. le Gallois’s having regarded respiration as a function wholly dependent on a combination of the nervous and muscular powers; whereas it seems evident, I think, that the sensorial power also shares in it. The muscles of respiration are, in the strictest sense, muscles of voluntary motion; we can at pleasure interrupt, renew, accelerate, or retard their action; and if we cannot wholly prevent it, it is for the same reason that we cannot prevent the action of the muscles of the arm, when fire is applied to the fingers. The pain, occasioned by the interruption of a supply of air to the lungs, is greater than can be voluntarily borne. Respiration continues in sleep for the same reason that we turn ourselves in sleep when our posture

becomes uneasy. It continues in apoplexy for the same reason that the patient generally moves his limbs if they are violently irritated. If respiration continues in apoplexy when no irritation of the limbs, however violent, excites the patient to move them, it arises from the interruption of a supply of air to the lungs, producing a greater degree of irritation than we are able to produce by other means. As the insensibility increases in apoplexy, the breathing becomes less frequent; and when the former becomes such that no means can longer excite any degree of feeling, the breathing ceases.

“By a certain sensation a desire is excited to expand the chest. This is an act of the sensorium. Till this act take place, both the nervous and muscular powers, by which its expansion is effected, are inert; it is in vain that these powers exist, if the power which calls them into action be lost. Thus the removal of the brain puts a stop to respiration.” 98.

While Dr. Philip maintains that it is impossible to refer the sensorial functions to any more general principle, he has, by experiments, the accuracy of which had long been questioned, but is now universally admitted, traced the nervous functions to the agency of galvanism.

He has shown, that the whole of these functions may be performed by this mean, after the nervous influence has ceased to operate, provided the parts still retain their vitality; and has, on the other hand, proved, that that influence can be made to leave the nerves, and pass through conductors of galvanism without being rendered incapable of its functions. Thus, in both ways establishing the identity of these agents.

Lastly, he has pointed out, what is perhaps of greater importance than any other fact in estimating the nature of the animal functions, that is a necessary inference from his various experiments, that the sensorial functions alone are the results of vital parts affecting each other by their vital properties; all the other vital functions being the results of inanimate agents acting on vital parts. To prove by experiment, indeed, that the nervous influence can perform its functions after it has been made to leave the nerve and pass through other conductors, seems alone sufficient to evince that it is an inanimate agent. Hence it is that we can, by artificial means, imitate the nervous functions, that these bear so strong an analogy to the phenomena of inanimate nature, and that we can refer them to a more general law, that is, class them with other phenomena which arise from the same power, whose effects, as Dr. Philip expresses it, are modified but not wholly changed by one of the agents in these functions being possessed of vitality; while the sensorial functions, on the other hand, bear no analogy to any other phe-

nomena, and can be referred to no more general principle, vital parts affecting each other by their vital properties only in the animal body; for all the functions of the vegetable world, according to the principles which result from Dr. Philip's experiments, arise from the action of inanimate agents on vital parts. Dr. Philip observes—

“As the properties of the vital principle do not differ from those of inanimate matter merely in degree or by any other modification, but have nothing in common with them, it follows, that when parts endowed with this principle affect each other only by their vital properties, the result must be such as bears no analogy to any of the properties of inanimate matter; and, consequently, that in all processes which have any such analogy, one of the agents must operate by the properties of this matter. We have seen that the characteristic difference in the sensorial and nervous functions is, that the former bear no analogy, the latter a very striking one, to those properties. On the other hand, we see the organs of the nervous system impressed by external objects, those of the sensorial system only through other vital parts. The nervous system is evidently the connecting link between the sensorium and the world which surrounds us. It consists of parts endowed with the vital principle, yet capable of acting in concert with inanimate matter; receiving impressions from it, and if the position just stated be correct, capable of impressing it; for there can be no stronger analogy than that which subsists between the secreting processes effected by the influence of the nervous system, and the chymical processes which take place in such matter; and if an inanimate agent be employed in these processes, its supply and application must be regulated by the vital powers of the nervous system. Whether this agent be a distinct being, or only a peculiar modification of the particles of bodies, is not the question; all the essential inferences are, in either case, the same. The phenomena of electric animals are here in point. We see their nervous system collecting and applying, even according to the dictates of the will, an inanimate agent.” 104.

We shall finish our view of the physiological part of the paper, which we have taken great pains to render connected and satisfactory, by quoting from it the following short recapitulation.

“It appears from all that has now been laid before the reader that there are three distinct powers in the animal system which have no direct dependence on each other, for we have seen the muscular surviving both the sensorial and nervous power, and the nervous the sensorial and muscular power; and nobody has supposed that the sensorial power has any dependence on either of the others, except as far as they are necessary for the maintenance of its organs, in which respect the nervous and muscular in the more perfect animal are equally, though not so immediately, dependent on the sensorial power.

"The nervous and muscular powers are, on the one hand, the direct means of maintaining the life of the animal, and on the other, of connecting it with the external world; the former receiving impressions from that world, the latter communicating impressions to it. All the functions of both powers bear a strong analogy to the properties of the world with which they are thus associated; we therefore have reason, according to principles above stated, to believe that all these functions, as is evidently the case with many of them, are the results of inanimate agents acting on vital parts.* There is none of them, as appears from the experiments which have been referred to, which may not be excited by artificial means as long as its organs retain the vital principle; and it is a remarkable fact, that they are all capable of being excited by one agent, and that an agent universally diffused, which we know from other facts to be intimately connected with the animal economy, and which in some of its most characteristic properties the influence of the nervous system resembles. Lastly, we know that an agent of the same nature with that of which we now speak, electricity, is in some animals capable of being collected and applied by the organs of the nervous system.

"When from the nervous and muscular we turn to the sensorial functions, we perceive results which have lost all analogy to those of inanimate matter. They have only an indirect effect in maintaining animal life, and are excited by no impressions but those communicated through the nervous system, and consequently are the results of living parts acting on each other. Hence it is, that they are the first functions which cease when the vital power begins to fail. In the nervous and muscular functions an inanimate agent excites the languid powers of life. In the sensorial functions, the functional power and the stimulus which excites it, being equally vital powers, fail together.

"When the nature of the sensorial functions is kept in view, we cannot be surprised that the attempts to refer them to a more general principle have proved so futile. To what other principle shall we refer the effects of the vital parts of animals on each other, when it is in animals alone that such parts ever influence each other? Even in vegetable life we find nothing analogous to the sensorial functions. All its processes bear the same analogy to the properties of inanimate matter, which we observe in the functions of the nervous and muscular systems of animals, and are, therefore, the results of inanimate agents acting on living matter.† Much less can we

* "The nervous power, by which the impressions on the organs of sense are conveyed to the sensorium, receives those impressions from inanimate matter. Even the heart is excited by inanimate agents, for although the blood be alive, it is by its chymical properties and bulk that it excites the heart and vessels, as appears from rendering the blood more or less stimulating, and greater or less in quantity."

† "It is here worthy of remark, that many phenomena render it probable that there is a continual passage of the electric influence through plants, to which both their form and position are peculiarly adapted."

look for any analogies of this kind in inanimate nature itself. Such reveries may please as the creations of the poet, but admit not of serious discussion. We are charmed with the flights of Lucretius, but we see only the perversion of philosophy in the reasonings of Hartley." 109.

In the foregoing review we have shortly enumerated the discoveries for which we are indebted to Dr. Philip. The public is left to compare them, without partiality or prejudice, with those of former or present physiologists; and to assign to Dr. Philip the place which belongs to him. He has attempted to raise no superstructure which has not experiment for its basis; and seems to have had it in view to draw a correct line between what is and what is not known. He has pointed out the vanity of inquiring into the nature of the vital principle and sensorial power, and shown that the study of them must be confined to the observation and arrangement of their phenomena. In addition to what he has done on subjects which had long been under discussion among physiologists, he has carried his investigations into the more complicated functions of the nervous system, which were very generally supposed to be placed beyond the reach of experiment, and has given an unanswerable proof of his success, by exhibiting these functions performed by artificial means.

It is a valuable, and, it will be admitted, an unusual feature in the physiological investigations of Dr. Philip, and a striking guarantee of their accuracy, that they have led immediately to improvements in the practice of medicine. We shall quote the whole of what is said in the present paper, relating to their practical results. The importance of these results will be a sufficient apology for the length of the quotation.

"If the foregoing inferences from the various experiments which have been referred to be correct, it is reasonable to suppose that they may be beneficially applied to the practice of medicine. The view of the different functions of the animal body, and their mutual dependence on each other afforded by those experiments, cannot, in that case, fail to be of use in explaining the nature and regulating the treatment of the deviations of these functions from the healthy state, particularly in the diseases whose symptoms are most influenced by the mutual sympathy of the vital organs.

"In a Treatise on Indigestion, I have attempted its application to an extensive class of these diseases. But I here wish chiefly to direct the reader's attention to the practical results from the experiments which relate to the influence of galvanism on the animal body.

"They led me more than six years ago to the employment of this agent in diseases, which seem to arise from a defect of nervous

power, particularly habitual asthma and indigestion ; and an account of its effects in those diseases was published in the *Philosophical Transactions* of 1817. It is now admitted, I believe, by all who have witnessed them, that in the former disease, and under certain circumstances of the latter, galvanism is the most effectual means of relief which we possess.

"In its employment, we must constantly guard against the inflammatory diathesis, both because it tends to produce this diathesis, and because the diseases to which it is adapted, for reasons pointed out at length in the *Treatise on Indigestion*, to which I have just referred, have the same tendency. As any considerable degree of the inflammatory diathesis not only obviates the beneficial effects of galvanism, but renders it injurious, the constant superintendence of a well-informed practitioner is necessary. I need not here enter more particularly into this part of the subject, which has been done in that treatise, and in my *Experimental Inquiry into the Laws of the Vital Functions*, in which the reader will find a detail of cases cured, or relieved by galvanism. To its effects in one case of considerable importance I shall beg leave more particularly to direct the reader's attention, because it is only since I last had occasion to mention the subject publicly, that I have witnessed them. Mr. Earle some time ago asked me, if I thought galvanism a probable means of relief in dyspnoea and indigestion, arising from disease of the spinal marrow. I did not hesitate to recommend a cautious trial of it, referring Mr. Earle to what I had said of such cases in the last part of the above mentioned Inquiry. I am happy to say the result has fully answered our expectations, as appears from the following letter which Mr. Earle did me the favour to address me.

George-Street, August 14, 1822.

"My dear Sir,

"I have much pleasure in transmitting to you the following account of the trials made with galvanism at St. Bartholomew's Hospital. The first case is that in which you witnessed its first application.

"Elizabeth Pepperall, aged 17, of fair complexion, and light hair, was admitted into St. Bartholomew's Hospital in August 1821, in consequence of an affection of the spine, which had existed for about a year and a half. At the time of her admission, it appeared, that almost all the dorsal and lumbar vertebræ were affected. She had nearly lost all power over her lower extremities and pelvic viscera ; and she complained of very severe cramps at the pit of the stomach, and acute pain in the course of the costal nerves, which was much increased by pressure on the ribs, or any attempt at a deep inspiration. Her general health was much deranged ; her pulse was very rapid, with occasionally severe palpitation of the heart, and constant dyspnoea. Her digestive powers were greatly impaired, she had no appetite ; and could only digest a small portion of stale bread and some milk and water. Even this meal was always followed by uneasy sensations at her stomach. and an in-

crease of headach, from which she was hardly ever free. Her bowels were obstinately costive, and the urine was scanty, and deposited large quantities of lithate of ammonia.

“ ‘ She was placed on one of my invalid beds, which enabled her to remain in a state of uninterrupted rest ; and after the repeated application of leeches, issues were made on either side of the dorsal spine, and subsequently in the lumbar region. The issues were kept actively open, and the strictest attention was paid to her general health. The spine very gradually became less sensible, and the power over the pelvic viscera and lower extremities slowly returned ; still, however, her stomach was incapable of digesting any other food than bread and milk and water, her headach remained nearly unabated, and her breathing was habitually difficult. She was in this state when you saw her, and the galvanism was first administered, (December 19.)

“ ‘ A trough containing plates of about three inches was employed. The positive wire was applied to the nape of the neck, the negative a little below the pit of the stomach. No sensation was at first produced by twenty plates ; but after the sensation was excited, she could not endure more than twelve. The first sensation she experienced caused her to take involuntarily a sudden and deep inspiration. The galvanism was applied for about a quarter of an hour, at the end of which time, her breathing became much freer than it had been for many months. Of this she repeatedly expressed herself perfectly certain, at the same time she felt considerable uneasiness at the stomach. She was slightly hysterical, in consequence of the agitation she had experienced, but her breathing was tranquil during the whole evening.

“ ‘ With a view to remove the tenderness in the epigastrium, leeches were applied to the region of the stomach, and the whole plan of treatment adapted to the secondary stage of dyspepsia was resorted to. When the tenderness had somewhat abated, the galvanism was repeated with more decided relief to the breathing, and without causing much uneasiness at the stomach.

“ ‘ After several applications of it, the relief she experienced in her breathing lasted for two or three days, and at length it was only necessary to repeat it occasionally. The effect of its administration was uniformly the same ; a most sensible and speedy relief from a state of anxious breathing to perfect ease and repose. Its beneficial effects were not, however, confined to the respiration ; the powers of her stomach greatly improved, and she was able to digest a small quantity of meat, or the yolk of an egg without pain. As her stomach improved, she lost the distressing headach, which had so constantly attended, as at one time to lead me to apprehend the existence of disease in the brain, having met with other cases in which scrofulous affection had existed in the brain and spine at the same time. Her progress from this time was uniform, and far more rapid than it had been before ; and in about two months, the catamenia, which had been suspended from the commencement of the disease, returned.

“ ‘ The patient was sufficiently recovered to leave the hospital, and return to her friends at Dartmouth early in July ; at which time she was able to walk with very little assistance, and without experiencing the least pain in her back. On reviewing the circumstances of this case, I have not the least hesitation in stating my decided opinion of the great benefit which was derived from the employment of galvanism, not only in affording temporary relief to the breathing, but in improving the secretions, and thus materially contributing to the ultimate recovery of the patient. I feel particularly happy that the patient was in a public hospital, and that the means were employed in the presence of many intelligent medical friends and pupils, who were all equally satisfied with myself of the essential and permanent benefit which she derived from the administration of galvanism.

“ ‘ It was employed in two other similar cases in the same hospital, those of Ann Baillies, and Maria May, in which it produced similar good effects, except that in one of these, the improvement of the general health, although not less than in the other cases, did not appear to have the same beneficial effect on the disease of the spine. It was tried in another case of spine disease, which was attended with fits of spasmodic asthma. These, as I was taught to expect from the observations you have published on this subject, it failed to relieve. It is remarkable, that in the case of Ann Baillies, in which the pulse was from 140 to 150, and very weak, the use of the galvanism always rendered it stronger, and brought it down from thirty to forty beats in the minute.

“ ‘ From observing the good effects of galvanism on the secretions of the stomach, I was induced to make a trial of it in a case of deafness, accompanied with a total want of secretion of cerumen in the right ear. Its first application produced a watery secretion, which by perseverance gradually assumed the taste and all the other characters of cerumen. The hearing was greatly improved in both ears, but how far this was to be ascribed to the restoration of the secretion is rendered doubtful, in consequence of a tumour having at the same time been removed from the tympanum of the left ear by the repeated application of caustic.

“ ‘ The foregoing facts you are perfectly welcome to make any use of, should you think them deserving of notice, and I am,

My dear Sir,

Very sincerely, yours,

HENRY EARLE.’

“ ‘ It appears from the foregoing statement, that in disease of the spinal marrow, galvanism is not only capable of performing the function of the diseased part of this organ, by which the vital actions are restored to a state of health, and the patient’s sufferings greatly mitigated ; but that, it also, as might *a priori* be expected, by thus improving the general health, indirectly contributes to the cure of the spinal disease. With regard to the last case mentioned by Mr. Earle, in which the secretion of cerumen was restored by galvanism.

this, it is evident, from what has been said, can only happen when the fault consists in a defect of nervous influence, and not in a diseased state of the vessels.

"When we compare the foregoing report of Mr. Earle with the statements which I have already had occasion to make public, respecting the effects of galvanism in other diseases, may we not hope that if in so few years such has been the result of the employment of this remedy on the principles above laid down, a more extensive experience will still extend the advantages derived from it. I have repeatedly seen its use more successful than any other means in obstinate general nervous debility, in which transmission through the stomach and lungs has still appeared to me the best means of applying it. In certain species of fever, and other cases attended with deficient nervous energy, we have reason to believe that it will be found a valuable remedy.

"I may close these observations by observing, that when galvanism is not used to such extent as to occasion an inflammatory tendency, I have never seen any bad effect from it, except a sense of languor, similar to the feeling of fatigue, when its employment has been too long continued. The inflammatory tendency produced by it, according to my experience, is always easily removed; is never followed by any serious consequence; and, with a little care, may almost always be prevented. I have repeatedly observed that when the cure has advanced to a certain point, its judicious employment, so far from causing the inflammatory tendency, has, by improving the state of the secreting surfaces, relieved that caused by the disease." 115.

In this article, as our readers perceive, we have been strictly analytical, convinced that by such course we would best promote the interests of science, and the well-earned reputation of the author. In fine, we have no hesitation in expressing our opinion that that the various writings, discoveries, and experiments of Dr. Wilson Philip, deservedly place him high in rank among the most illustrious physiologists, pathologists, and physicians of the age in which we live.

IX.

A Treatise on Dislocations, and on Fractures of the Joints.
By Sir ASTLEY COOPER, Bart. F.R.S. Surgeon to the King,
&c. One Volume, Quarto, pp. 562, and 30 Plates. Price
1l. 11s. 6d. London, October, 1822.

THE short address to the "Students of St. Thomas's and Guy's Hospitals," prefixed to this splendid volume, excited a train of reflections in our minds, which might not be uninteresting, could we afford them space in this article. The address runs thus :—

"MY DEAR YOUNG FRIENDS,

"This Work was composed for your use, and if you derive advantage from it, my principal object is fulfilled :—but I shall take this opportunity to express my gratitude to you, for the affectionate and respectful manner in which you always receive me as your instructor. Your parents and relatives, many of whom were my pupils, are also entitled to my most grateful acknowledgements :—they fostered me in early life ; and by their friendship and recommendation, have largely contributed to procure me a degree of success, I fear, beyond my merits, and a course of uninterrupted happiness which few have been permitted to enjoy.

"Believe me always,

"Your affectionate friend,

"ASTLEY COOPER."

If the life of a medical practitioner is not chequered with great events, his mind is too generally the theatre of anxious solicitude and conflicting emotions. The perplexing difficulties and heavy responsibilities of his avocations, put his reputation daily and hourly in jeopardy—while the rivalry of surrounding competitors is but too well calculated to engender and foster, in the human breast, a host of passions that contribute but little to either health or happiness. He then who among the favoured few, has left rivalry almost out of sight behind him—whose reputation has become fixed in the minds of his brethren and the public, and consequently, invulnerable by chance or hostility—whose word is law—and whose very oversights are but foils to his superior judgment, as exceptions prove general rules—he, we say, may be happy, if his own natural disposition will permit. By his contemporaries, such a man is designated as *fortunate* ; though nothing can be more clear than that he is generally the architect of his own fortunes. True it is, that extensive connexions and ample pecuniary resources, are powerful auxiliaries to talent, and the *sine qua non*, without it—but very many

examples around us demonstrate, that talent, of a certain order, *creates* these for itself, and *commands* them to follow in its train. He is not always the most fortunate man, whose parents are the richest, whose legacies are the largest, or whose friends are the most numerous, when he first starts as a candidate for public favour. We consider it no trifling piece of good luck, in such circumstances, to be born with brains—we do not mean such brains as are daily demonstrated in the dissecting rooms, and which differ little, if at all, from those which we buy for eightpence a pound in a butcher's shop—we mean brains of that kind of texture, that capacitates them for receiving impressions from the external world with accuracy, retaining them with fidelity, combining them with ingenuity, and communicating them with precision. It is only with such a brain, that a man can expect to take the lead in any branch of medical science; and we suspect that it must have been with some such brain that the author of the work before us fought his way, single-handed, to the summit of his profession. It could not have been the attraction of ordinary merit that drew towards its possessor a tide, or rather a torrent of wealth and fame, unprecedented in any age or in any country—and that without the aid of a faction, the patronage of the great, or the inheritance of an ancestral reputation. By a rare union, in fact, of mental energy, physical force, and professional zeal, Sir Astley Cooper has more than realized all that youthful ardour could have anticipated—and that, we firmly believe, without making, or, at least, *deserving*, a single enemy. That such pre-eminence should be attained in the medical, or in any other profession, without exciting *envy*, is as little to be expected as a retrograde motion of the earth in its orbit round the sun; nor is it unamusing to the contemplative philosopher, to observe the *symptoms* of this moral malady, betrayed, when most studiously concealed, and revealing its operation where its influence is denied. The following symptom we deem to be nearly pathognomonic of the disease in question. "Sir Astley Cooper is a very good surgeon, *but*, he is not sufficiently *scientific*." Dr. Johnson defines science to be—1st, "*knowledge*"—2dly, "*certainty grounded on demonstration*." So then, Sir Astley Cooper is a good Surgeon—with the trifling exception that he is defective in the *knowledge* of Surgery!—On this point we have but two remarks to make. In the first place, were Sir Astley Cooper tried by a jury of his professional brethren in any spot of Europe beyond the sphere of his personal competitors, he would be unanimously acquitted—or, rather, the indictment would be at once thrown out by a grand jury. In the second place, we are confident, that

the same verdict would be given, even by a *Middlesex* jury, and that with a most overwhelming majority.*

We have hinted that, if riches, honours, and fame, can make a man happy, our author ought to be happy; and we have his own declaration, in his address, that he really is so. We confess, however, that we are ill-natured enough to hope that this happiness is not complete, and that it will not be so, until this able surgeon shall have communicated to his brethren at large, the fruits of his unparalleled experience. It is fortunate for society that this last duty of an exalted medical character, is one to which Nature herself most strongly prompts. However long the range of life, and however numerous the wreaths of laurel, few men can be insensible to posthumous fame. The productions of the press are the least perishable of all human memorials. The pyramids could not preserve the memory, or even the names, of their founders; while the *Iliad* has rendered Homer immortal. Nothing but the press can withstand the scythe of Time—and none but the author of a good book can with propriety, say, “*saltem non omnis moriar.*” That these “longings after immortality” do not operate equally on all men, is fortunate in some respects, and to be regretted in others. It saves us many a ponderous tome of dulness, but at the same time, deprives us of much valuable knowledge which sinks into the grave with its possessor. It unfortunately happens too, that those men, in our profession, who are most capable of imparting valuable information, are least inclined to come before the public as authors. And, indeed, when we reflect that every man considers himself a critic, upon such occasions, and entitled to make all manner of ill-natured observations on a book, we can hardly wonder at the backwardness to authorship among those who are established in reputation without such hazards. It is hardly necessary to remark, that this very consideration enhances our obligations to such men as Sir Astley Cooper, for imparting valuable information to their brethren at the risk of illiberal criticism for themselves. And this leads us to remark, that the volume before us is just the reverse of books in general—the matter is good, and the price

* With respect to science, our own feelings are, that it does not consist in hypothetical speculations emanating from a feverish brain, and which perish almost in their birth; but in sober and judicious reflections upon the subjects presented to our senses, and which, if they are fair inductions from careful and accurate observations, will endure for ever. We apprehend that this is the view which our author, also, has taken of science, and his successful and honourable career proves the wisdom and the propriety of his choice.

is low. We are confident that the sale of a large impression will not more than defray the expense of the letter-press and engravings. The latter alone, 30 in number, are fully worth the whole price attached to the volume! The same may be said of Sir Astley Cooper's splendid work on Hernia. The sale of a large edition did not pay for the plates. Such instances of biblical generosity are very unusual in these book-making days, when the most trumpery materials are vamped up and exposed at an enormous price. We do not, indeed, mean to insinuate that other authors can or ought to follow the example of Sir Astley—very few of them are in circumstances to do so:—but still the individual instance of liberality towards his less fortunate brethren, is not the less worthy of commemoration on the part of the author in question.

A considerable part of the volume before us has been previously published in the form of essays, which were reviewed in the second volume of our first, or Quarterly Series, No. 8, for April, 1820; but it was always Sir Astley Cooper's intention to embody the subject of dislocations in a single work. He has, therefore, enlarged and improved the plates, added new matter to that previously published, and has given a view of those dislocations which he had not before described.

“To those who have purchased my Essays, it would probably be some accommodation, that I should publish the additional matter separately; and if they will send their names to me in less than three months from this publication, expressing such a wish, I will have the subjects not previously described, printed in the octavo form for their convenience.” *Preface.*

As our first series is not in the hands of half our present subscribers, and as the size of the volume before us must naturally cramp its circulation among the more distant members of medical society, we shall probably do right to exhibit as full a view of the subject of dislocations generally, as our limits will permit, especially as we confined ourselves in our review of the Essays, to simple and compound dislocations of the ankle-joint *only*.

Sir Astley observes in his preface, that it is probable his professional brethren will be disposed to think he has limited to too short a period, the attempts at reduction of dislocations; yet, having observed that, except in very emaciated, relaxed, and aged persons, the injury done in the extension has been greater than the advantage gained by the reduction, he is not disposed to recommend attempts at the latter, especially in strong muscular persons, after a period of three months from the accident, “finding that the use of the limb is not, when reduced, greater than that which it would have

acquired by having remained in its dislocated state." Our author also states, in his preface, an exception to a general rule, which he has lately seen, where the foot was inverted instead of everted in a fracture of the neck of the thigh bone.

In some general and highly judicious observations on dislocations, our author most truly remarks, that students too often neglect to make themselves sufficiently acquainted with the anatomy of the joints, while they take great pains to dissect the muscles of a limb with neatness and minuteness, throwing away the member without any examination of the ligaments, a knowledge of which is of more importance than of the muscles. Sir A. has known even an hospital surgeon apply pulleys in case of a fracture of the neck of the thigh bone, which had been mistaken for dislocation, thus exposing the patient to violent and protracted extension. At the same time, it is but justice to acknowledge that the tumefaction arising from extravasation of blood, and the tension resulting from inflammation, render it exceedingly difficult, in the early days of an accident, to be perfectly assured of the exact extent of the injury.

"And, therefore, conclusions drawn at a time when the muscles are wasted, the swelling dispersed, when the head of the bone can be distinctly felt, and the motions of the limb are found to be impeded in a particular direction, if they tend to the prejudice of the individual who may have given a different opinion under circumstances so much less favourable for forming a just opinion, they will be both illiberal and unjust." 4.

We hope our young surgical brethren will take example from the foregoing remark, and make it a rule of conduct never to reflect on the practice or opinions of their contemporaries before their patients. The breach of this precept is the bane of our profession—and we are convinced that the *want of liberality* towards each other has injured us ten times more in the eyes of the public than all the instances of ignorance, negligence, and other kinds of misconduct put together. Occasions may occur where we are compelled to expose the errors or the ignorance of our brethren, but we apprehend that they are very rare—at least we have not met with half a dozen cases in our lives where there was an absolute necessity of making the extra-professional party acquainted with the matter.

The immediate effects of dislocation are change of form in the limb, which may be shorter or longer than natural, loss of motion, and pain either obtuse or acute. In most instances the head of the bone can be felt in the new locality, and rotation of the limb reveals the accident. A remote effect is crepitus, produced by the effusion of fibrin into the

joint and bursæ, in consequence of which the synovia becomes inspissated, and crackles under motion. Some degree of inflammation and tumefaction succeeds, rendering the detection of the injury much more difficult, and sometimes almost impossible. Occasionally, though rarely, supuration takes place in the dislocated joint, and the patient is destroyed. If the limb be not reduced, the bone forms for itself, in time, a new bed, and some degree of motion is gradually recovered, especially in the shoulder. In the lower extremity the patient is lame for life in such cases. On dissection, we find the head of the bone displaced; the capsular and other peculiar ligaments torn; (excepting the tendon of the biceps, in shoulder dislocations, which Sir A. has not found torn;) the formation of new capsular ligaments; the articulating head of the bone unchanged, if thrown on a cushion of muscle, but much changed if thrown on bone, or on a thin muscle covering a bone. In the *first* case, (cushion of muscle,) the articulating cartilage remains, a new capsular ligament being formed around but not adhering to it—in the *latter* case, (cushion of bone,) absorption of the periosteum of one bone and cartilaginous surface of the other takes place, thus forming a smooth hollow surface, with an ossific deposit around it, something like the brim of the original socket, demonstrating the amazing powers of nature.

Dislocations occasionally take place from mere relaxation of the ligaments, of which some curious cases are related by our able author. This relaxed state of the ligaments is sometimes produced by an accumulation of synovia in the joints. A case of dislocation of the patella from this cause is detailed by Sir Astley, where the patient could not walk without a tight bandage to keep the knee-pan from slipping. Even the loss of muscular power will sometimes cause dislocation; two instances of which are stated. In one case the loss of muscular tone was produced by over-distention of the muscles—in the other, it was from paralysis of one side, occurring during dentition. Dislocations frequently take place from ulceration, by which the ligaments are detached, and the bones become destroyed. This is often the case in the hip-joint. There is a preparation at St. Thomas's Hospital, where the knee had been dislocated by ulceration, the joint ankylosed, and the leg turned directly forwards at right angles with the femur.

Dislocations are occasionally accompanied by fracture. In such cases it is proper to reduce the dislocation, without loss of time, taking care that the fractured part be strongly bandaged in splints, to prevent any injury to the muscles;

If this be not done at first, it cannot be done afterward, without risking the disunion of the fracture. Thus, if there be a compound fracture of the leg cotemporaneous with a dislocation of the shoulder, the reduction of the latter should be immediately undertaken as soon as the fractured limb is secured in splints.

With the exception of the first and second vertebræ of the neck, which are said to be occasionally dislocated, what are called dislocations of the spine are really fractures of the vertebræ followed by displacement of the bones, but not of the intervertebral substance.

Compound dislocations—that is, dislocations with exposure of the cavity of the joint from laceration of the integuments and ligaments, are attended with great danger, and on the following account.

“When a joint is opened, inflammation of the lacerated ligaments and synovial membrane speedily succeeds; in a few hours suppuration begins, and granulations arise from the surface of the synovial membrane, which being a mucuous membrane, is more disposed to the suppurative, than to the adhesive inflammation. But the same process does not immediately take place upon the extremity of the bone, because it is covered by the articular cartilage. This cartilage, before the cavity fills with granulations, becomes absorbed by an ulcerative process instituted on the end of the bones, beginning from the synovial membrane. The bone inflames, the cartilage becomes ulcerated; numerous abscesses are formed, in different parts of the joint, and at length granulations spring from the extremities of the bones deprived of their cartilages, and fill up the cavity; generally these granulations become ossified, and ankylosis succeeds; but sometimes they remain of a softer texture, and some degree of motion in the joint is gradually regained.” 18.

This process requires great constitutional efforts, and if the constitution be weak, amputation will often be necessary to preserve life. The treatment will be amply discussed under the head of compound dislocation of the ankle joint. Of partial dislocations we need not speak, nor of the causes of dislocations. Of the astonishing strength of muscles, ligaments, and tendons, a horrible and revolting example was furnished at the execution of Damien, for the attempted murder of Louis XV. Four horses were attached to the four extremities of this wretched man, and after dragging fifty minutes in vain, the executioners were obliged to cut the muscles and ligaments with their knives to effect the dismemberment! Happily for the feelings of mankind, such barbarous spectacles are now for ever banished. The privation of life, by the most simple and expeditious means, is sufficiently cruel, humiliating, and denaturalizing; and we

hope the day is not far off, (indeed it cannot be,) when the life of man shall, *on no account*, be destroyed by the sword of justice. Hard labour or solitary confinement appears to be the proper expiation of guilt or crime: and even when that crime is murder, the same act, though under another name, should not be committed in open day as the punishment.

Dislocations are comparatively rare in the aged and in children—the bones generally giving way first. What are called dislocations of the hip-joint in children, are considered by Sir Astley as arising from ulceration. Dislocation (supposed) of the elbow-joint, in the same subjects, “is an oblique fracture of the condyles of the os humeri, which produces the appearance of dislocation by allowing the radius and ulna, or the ulna alone, to be drawn back with the fractured condyle, so as to produce considerable projection at the posterior part of the joint.”

Our experienced author has clearly shown that it is principally from the muscles we experience difficulty in reducing dislocations—and that from their inherent tonicity rather than their voluntary or involuntary contractions. This kind of contraction is not succeeded by fatigue or relaxation, but will continue an indefinite time, even till the muscle suffers change of structure, increasing daily in its power of resistance from the first occurrence of the accident. It is this resistance from muscles, aided by their voluntary contraction, which it is the business of the surgeon to counteract—and it is easily counteracted if extension be made immediately after a dislocation has happened; but in a few days great difficulty occurs.

The means of reduction are both constitutional and mechanical. It is wrong to use the latter alone, lest the degree in which it is necessary to employ it occasion violence and injury—indeed the most powerful mechanical means will often fail if unaided by constitutional remedies. Bleeding, the warm bath, and nausea, are the principal constitutional aids. Of these, venesection is the most powerful, especially when the blood is drawn from a large orifice, the patient being kept in the erect position. Whether the warm bath be used by itself, or as an auxiliary to the bleeding, it should be from 100 to 110 of temperature, the patient being kept in the bath till the fainting effect is produced, when he should be immediately placed in a chair wrapped in a blanket, and the mechanical means employed. Of late years our author has employed nauseating doses of tartar emetic, principally with the view of keeping up the faintish state produced by the other two means.

The mechanical process is next to be exerted, by fixing one bone (that in which the socket is) and drawing the other towards the socket. The force should be gradually applied, so as to produce that state of fatigue and relaxation which is sure to follow continued extension. The great object is to firmly fix the socket bone—thus, if *one* person pulls at the scapula and *two* at the fore-arm, the scapula is necessarily drawn with the os humeri, and the extension is very imperfectly made. The compound pulley is far preferable to the force of assistants. Its effects may be directed by the judgment of the practitioner, whereas the exertions of assistants are sudden, violent, and often ill directed—their action being as likely to lacerate the parts as to restore the bone to its place. In dislocations of the hip-joint pulleys should always be employed—and in those dislocations of the shoulder that have remained long unreduced. Sir Astley Cooper thinks it better, as a general rule, to apply the extension to the bone dislocated than to the limb of which that bone forms a part. To this there is an exception in the case of the shoulder; in dislocations of which he places his heel in the axilla and draws at the wrist, in a line with the side of the body, by which means the pectoral muscle and latissimus dorsi are brought into a state of relaxation; whereas, they would form a powerful opposition, if the arm was carried far from the side.

Bandages are generally necessary after reduction, to prevent another dislocation, especially at the shoulder and in the lower jaw. The hip is rarely re-dislocated.

Sir Astley Cooper believes that much mischief is produced by attempts to reduce dislocations of long standing in very muscular persons. He has seen the patient's condition rendered much worse than before by abortive attempts of this kind. Our author is of opinion that three months for the shoulder, and eight weeks for the hip, may be fixed on as the latest periods for reductive attempts, except in people of extremely relaxed fibre, or of a very advanced age.

Having premised these observations on dislocations in general, we now come to particular instances, beginning with:—

Dislocations of the Hip-Joint. The anatomy of this joint is first described by Sir Astley, and then he proceeds to the modes of dislocation. These, in his experience, have been four—viz. upwards on the dorsum illi—downwards into the foramen ovale—backwards and upwards into the ischiatic notch—and forwards and upwards upon the body of the pubes. No dislocation downwards and backwards, as described by some surgeons, has occurred at Guy's or St.



Thomas's Hospitals within the last thirty years, nor in our author's private practice. Sir A. therefore doubts, but does not deny its existence.

The dislocation upwards on the *dorsum ilii* is the most frequent of occurrence, and is known by the following signs :—

“ The limb on the dislocated side is from one inch and half to two inches and a half shorter than the other, as is well seen by comparing the malleoli interni, and by bending the foot at right angles with the leg. The toe rests against the tarsus of the other foot ; the knee and foot are turned inwards, and the knee is a little advanced upon the other. When the leg is attempted to be separated from the other it cannot be accomplished, for the limb is firmly fixed in its new situation, so far as regards its motion outwards ; but the thigh can be slightly bent across the other. If the bone be not concealed by extravasation of blood ; the head of the thigh-bone can be perceived during rotation of the knee inwards, moving upon the *dorsum* of the ilium, and the trochanter major advances towards its anterior and superior spinous process, so as to be felt much nearer to it than usual. The trochanter is less prominent than that on the opposite side, for the neck of the bone and the trochanter are resting in the line of the surface of the *dorsum ilii* ; upon a comparison of the two hips, the roundness of the dislocated side will be found to have disappeared. A surgeon, then, called to a severe and recent injury of the hip-joint, looks for a difference in length, change of position inwards, diminution of motion, and decreased projection of the trochanter.” 40.

The accident most likely to be confounded with the dislocation upwards, is fracture of the neck of the thigh bone within the capsular ligament. Sir Astley observes, that the marks of distinction are generally sufficiently strong to prevent an error in a person commonly attentive. We shall give the distinctions in our excellent author's own words.

“ In a fracture of the neck of the thigh-bone, the knee and foot are generally turned outwards ; the trochanter is drawn upwards and backwards, resting upon the *dorsum ilii* : the thigh can be readily bent towards the abdomen, although with some pain : but, above all, the limb which is shortened from one to two inches, by the contraction of the muscles, can be made of the length of the other by a slight extension, and when the extension is abandoned, the leg is again shortened. If, when extended, the limb is rotated, a crepitus can often be felt, which ceases to be perceived when rotation is performed under a shortened state of the limb. Fracture of the neck of the thigh-bone within the capsular ligament, rarely occurs but in advanced age, and it is the effect of the most trifling accident, owing to the interstitial absorption which this part of the bone undergoes at advanced periods of life. Fractures externally to the capsular ligament occur at any age, but generally in the middle periods of life ; and these are easily distinguished by the

crepitus which attends them, if the limb be rotated, and the trochanter compressed with the hand. The position is the same as in fractures within the ligament. Fractures of the neck of the thigh-bone are very frequent accidents when compared to dislocations." 41.

Our author's first plate exhibits these dislocations in a visible—we had almost said a tangible form.

To confound dislocations from violence and diseases of the hip-joint, betrays culpable ignorance of anatomy, or reprehensible want of observation. The gradual progress of the symptoms; the pain in the knee; the apparent elongation at first, and real shortening afterward; the capacity for motion, yet the pain on extreme rotation, flexion, and extension, are marks of difference which ought to strike the most inattentive observer. It is true that the consequences of a disease of this kind, when it has long existed, are, ulceration of the ligaments, acetabulum, and head of the bone, allowing such a change of relative situation of parts, as sometimes gives the limb the position of dislocation—it is the history of the case which easily decides the question.

The cause of this dislocation is generally a fall, when the knee and foot are turned inwards—or a blow, when the limb is in that position. The head of the bone is then displaced upwards, and turned backwards.

"In the reduction of this dislocation, the following plan is to be adopted: take from the patient from twelve to twenty ounces of blood, or even more, if he be a very strong man; and then place him in a warm bath at the heat of 100° , and gradually increase it to 110° , until he feels faint. During the time he is in the warm-bath, give him a grain of tartarized antimony every ten minutes until he feels some nausea, then remove him from the bath and put him in blankets, and place him between two strong posts about ten feet asunder, in which two staples are fixed; or rings may be screwed into the floor, and the patient be placed upon it. My usual method is to place him on a table covered with a thick blanket, upon his back; then a strong girt is passed between his pudendum and thigh, and this is fixed to one of the staples. A wetted linen roller is to be tightly applied just above the knee, and upon this a leather strap is buckled, having two straps with rings at right angles with the circular part. The knee is to be slightly bent, but not quite to a right angle, and brought across the other thigh a little above the knee of that limb. The pulleys are fixed in the other staple, and in the straps above the knee. The patient being thus adjusted, the surgeon slightly draws the string of the pulley, and when he sees that every part of the bandage is upon the stretch, and the patient begins to complain, he waits a little to give the muscles time to fatigue; he then draws again, and when the patient complains much, again rests, until the muscles yield. Thus he gradually proceeds until he finds the head of the bone approach the

acetabulum. When it reaches the lip of that cavity, he gives the pulley to an assistant, and desires him to preserve the same state of extension, and the surgeon then rotates the knee and foot gently, but not with a violence to excite opposition in the muscles, and in this act the bone slips into its place." 43.

The surgeon must not expect to hear the bone snap when it goes in, because the muscles are so much relaxed by the process above described, that they have not power to act with violence. It is only by loosening the bandages and comparing the limbs that the surgeon becomes assured of the reduction. When there is difficulty in bringing the bone over the lip of the acetabulum, it may be lifted by placing the arm under it near the joint; or a napkin may be placed under it as near the head of the bone as possible, and raised by an assistant.

Several very interesting and highly illustrative cases are introduced by our author from page 45 to page 63, which we must pass over, in order to give as much of our author's valuable didactic matter as possible.

Dislocation downwards, into the Foramen Ovale. This generally happens when the thighs are widely separated from each other. The ligamentum teres, and the lower part of the capsular ligament, are torn through, and the head of the bone becomes situated in the posterior and inner part of the thigh, upon the obturator externus muscle.

"The limb is in this case two inches longer than the other. The head of the bone can be felt by pressure of the hand, upon the inner and upper part of the thigh towards the perineum, but only in very thin persons. The trochanter major is less prominent than on the opposite side. The body is bent forwards, owing to the psoas and iliacus internus muscles being put upon the stretch. The knee is considerably advanced if the body be erect; it is widely separated from the other, and cannot be brought without great difficulty near the axis of the body to touch the other knee, owing to the extension of the glutei and pyriformis muscles. The foot, though widely separated from the other, is neither turned outwards nor inwards generally, although I have seen it varying a little in this respect in different instances; but the position of the foot does not in this case mark the accident. The bent position of the body, the separated knees, and the increased length of the limb, are the diagnostic symptoms. The position of the head of the bone is below, and a little anterior to the axis of the acetabulum; and a hollow is perceived below Poupart's ligament." 66.

Sir Astley states the particulars of an interesting dissection which he many years ago made of an accident of this kind, the preparation of which is now in St. Thomas's Hospital.

The head of the thigh bone was found resting in the foramen ovale, around which bony matter was deposited, so as to form a deep cup, in which the head of the thigh bone was enclosed, but in such a manner as to allow of considerable motion. The cup thus formed surrounded the neck of the thigh bone, without touching it, so enclosing its head that it could not be removed from the new socket without breaking its edges. The inner surface of this new cup was extremely polished. The original acetabulum was half filled up with bone. The head of the thigh bone was very little altered—the articulating cartilage still remaining—the ligamentum teres broken—the capsular ligament partially torn through. The preparation exhibits an astonishing instance of the powers of Nature in compensating for injuries.

“The reduction of this dislocation is generally very easily effected. If the accident has happened recently, all that is required is, to place the patient upon his back, to separate the thighs as widely as possible, and to place a girt between the pudendum and upper part of the luxated thigh, fixing it to a staple in the wall. The surgeon then puts his hand upon the ankle of the dislocated side, and draws it over the sound leg, and the head of the bone slips into its socket.” 67.

It is proper, and generally necessary, to fix the pelvis, by a girt passed around it and crossed under that which passes around the thigh, otherwise the pelvis moves in the same direction with the head of the bone. A very illustrative plate is given, showing the mode of reduction in this species of dislocation. Where the dislocation has existed for some weeks, Sir Astley recommends the patient to be placed on his sound side—to fix the pelvis by one bandage, and to carry another under the dislocated thigh to which the pulleys are to be affixed perpendicularly—then to draw the thigh upwards, whilst the surgeon presses down the knee and foot, to prevent the lower part of the limb being drawn with the thigh bone. Great care must be taken not to advance the leg in any considerable degree, otherwise the head of the thigh bone will be forced behind the acetabulum into the ischiatic notch, whence it cannot afterward be removed. Here our author has introduced some interesting cases (not in the original essays) illustrative of this species of accident, which the surgical reader will find it very advantageous to peruse.

Dislocation backwards into the Ischiatic Notch. In this accident the head of the femur lodges on the pyriform muscle, between the edge of the bone which forms the upper part of the ischiatic notch, and the sacro-sciatic ligaments, behind

the acetabulum, and a little above the level of the middle of that cavity. This is the most difficult dislocation both to distinguish and to reduce.

"The signs of this dislocation are, that the limb is about half an inch to one inch shorter than the other, but generally not more than half an inch; that the trochanter major is behind its usual place, but is still remaining nearly at right angles with the ilium, with a slight inclination towards the acetabulum. The head of the bone is so buried in the ischiatic notch, that it cannot be distinctly felt except in thin persons, and then only by rolling the thigh-bone forwards as far as the comparatively fixed state of the limb will allow. The knee and the foot are turned inwards, but not near so much as in the dislocation upwards, and the toe rests against the ball of the great toe of the other foot. When the patient is standing, the toe touches the ground; but the heel does not quite reach it. The knee is not so much advanced as in the dislocation upwards, but is still brought a little more forwards than the other, and is slightly bent. The limb is fixed, so that flexion and rotation are in a great degree prevented." 76.

It is generally produced by force being applied when the body is bent forward upon the thigh, or when the thigh is bent at right angles with the abdomen, in which position, if the knee be pressed inwards, the head of the bone is thrown behind the acetabulum.

"The reduction of the dislocation in the ischiatic notch is generally extremely difficult, and is best effected in the following manner: the patient should be laid on a table upon his side, and a girt placed between the pudendum and the inner part of the thigh to fix the pelvis. Then a wetted roller is to be applied around the knee, and the leather strap over it. A napkin is to be carried under the upper part of the thigh. The thigh-bone is then brought across the middle of the other thigh, measuring from the pubis to the knee, and the extension is to be made with the pulleys. Whilst this is conducting, an assistant pulls the napkin at the upper part of the thigh with one hand, and rests the other upon the brim of the pelvis, and thus lifts the bone as it is drawn towards the acetabulum over its lip. For the napkin I have seen a round towel very conveniently substituted, and this was carried under the upper part of the thigh, and over the shoulders of an assistant, who then rested both his hands on the pelvis, as he raised his body and lifted the thigh." 78.

Sir Astley has here introduced a new and interesting case, communicated by Mr. Rogers, an intelligent surgeon of Manningtree. The patient, in a drunken frolic, received an injury while wrestling or fighting with one of his companions, but Mr. R. did not see him till the next day, when the whole of the right thigh and of the soft parts around the pelvis were immensely swollen. It was therefore impossible

to ascertain the nature of the injury, though Mr. R. suspected some unusual dislocation of the thigh from observing the knee and foot very much turned inwards, the limb being scarcely shortened. Local and general means were used for the reduction of the swelling and inflammation, and the patient was kept quiet for eleven days. Mr. Nunn of Colchester, and Mr. Travis of East Bergholt, now assisted Mr. Rogers with their advice. They all agreed that there was a dislocation, but of what kind they could not ascertain. They resolved to delay a few days, and, in the interim, procure Sir Astley's Essay, then recently published. In it they found the case described. By imitating exactly the process recommended by Sir Astley, they happily succeeded in reducing the dislocation. Preparatory to the operation, they bled the patient, *ad deliquium*, and while fixing the pulleys, gave him four grains of tartar emetic at intervals, to produce nausea. We think it highly probable, that this, and many other men since, owe the free use of their limbs to the admirable Essays in question.

Sir Astley Cooper, in his remarks on this case, observes that the descriptions given of dislocation into the ischiatic notch by authors, are very incorrect—and must have occasioned great errors in practice. Thus, it has been stated that the limb is shorter than the other in such accidents—an error that must have arisen from examining a pelvis separated from the skeleton and there remarking that the ischiatic notch is below the level of the acetabulum when the pelvis is horizontal—although it is really above the acetabulum in the natural oblique position of the bony circle, at least as regards the horizontal axis of the two cavities. It is to be remembered, that there is no such accident as dislocation of the hip downwards and backwards.

Dislocation on the pubes. This is the most easily detected of all; and generally happens from a person, while walking, putting his foot into some unexpected hollow in the ground, his body at the moment being bent backwards. The head of the bone is thus thrust forward on the pubes. The distinctive symptomatology we shall give in the language of the author, which is a model of terse and luminous description.

“ In this species of dislocation, the limb is an inch shorter than the other; the knee and the foot are turned outwards, and cannot be rotated inwards, but there is a slight flexion forwards and outwards; and in a dislocation which had been long unreduced, the motion of the knee backwards and forwards was full twelve inches; but the striking criterion of this dislocation is, that the head of the thigh-bone may be distinctly felt upon the pubes, above the level of Poupart's ligament, on the outer side of the femoral artery and vein.

It feels as a hard ball there, which is readily perceived to move by bending the thigh-bone." 94.

Easy as this accident is of detection, our author has known three instances, in which it was overlooked till too late. Of one of these the preparation is now in St. Thomas's Hospital—one was a gentleman from the country, in whom the accident was not discovered until some weeks had elapsed, when he submitted to an unsuccessful attempt at reduction—the third was a patient in Guy's Hospital, who was admitted for an ulcerated leg, and was found to have a dislocation upon the pubes that had happened some years previously.

"In the reduction of this dislocation, the patient is to be placed on his side on the table; the girt to be carried between the pudendum and inner part of the thigh, and fixed in a staple, a little before the line of the body. The pulleys are fixed above the knee, as in the dislocation upwards, and then the extension is to be made in a line behind the axis of the body, the thigh-bone being drawn backwards. After this extension has been for some time continued, a napkin is to be placed under the upper part of the thigh, and an assistant, pressing with one hand on the pelvis, lifts the head of the bone, by means of the napkin, over the pubes and edge of the acetabulum." 96.

As far as the experience and inquiries of our author enable him to calculate, he thinks that the relative proportion of dislocations at the hip-joint stands nearly as follows:—Of 20 cases, 12 will be on the dorsum ilii—five in the ischiatic notch—two in the foramen ovale—and one on the pubes. It is evident, however, that this calculation is liable to considerable error from the extreme difficulty of making it.

It is not a little curious, that the once celebrated Sharpe, formerly surgeon to Guy's Hospital, and author of a *Treatise on Surgery*, who had a large share of the public and private practice of the metropolis, did not believe that a dislocation of the thigh-bone ever occurred! Yet, in the present day, our provincial surgeons readily detect such injuries, and generally succeed in reducing them. "Let them never forget, however, that it is to their knowledge of anatomy, more especially of morbid anatomy, that they are indebted for this superiority." Sir Astley quotes the case related by Mr. Cornish, of Falmouth, (published in a former number of this Journal,) where a dislocation of the hip was reduced by a fall on board a vessel, five years after the accident. Sir Astley has searched the books of both St. Thomas's and Guy's Hospitals, without being able to find the name of Mac Fadder; but, possibly, he may have entered (as many sailors do) under an assumed name. Mr. Cornish will doubtless make inquiries about this.

We have now finished the subject of dislocations of the thigh-bone, and it is almost unnecessary to remark, that Sir Astley Cooper has conferred a great obligation on his surgical brethren, for the very important information which he has thus communicated to them, in such clear and explicit language that the veriest tyro can comprehend, with ease, the whole of the diagnostic and therapeutical indications. We now come to—

Fractures of the Os Innominatum. As these accidents are liable to be mistaken for dislocations, and as any extension would be productive of serious, or even fatal consequences, our author is anxious to say a few words concerning them in this place.

“When a fracture of the os innominatum happens through the acetabulum, the head of the bone is drawn upwards, and the trochanter somewhat forwards, so that the leg is shortened, and the knee and foot are turned inwards: such a case then may be readily mistaken for dislocation into the ischiatic notch. If the os innominatum is disjoined from the sacrum, and the pubes and ischium are broken, the limb is a slight degree shorter than the other; but in this case the knee and foot are not turned inwards. Of the first of these accidents I have seen two examples; of the latter only one.

“These accidents are generally to be detected by a crepitus being perceived on the motion of the thigh, if the hand be placed upon the crista of the ilium; and they are attended with more motion than occurs in dislocations.” 105.

The above precepts are illustrated by three interesting cases, two at St. Thomas's, the other at Guy's Hospital. To these we must refer for particulars. All three patients died, and the dissections are given.

One of the most interesting and valuable portions of the work before us, is that on fractures of the upper part of the thigh-bone, commonly called—

Fracture of the Neck of the Femur. This accident is but too frequently confounded with dislocations of the thigh-bone, and no wonder, since “it must be confessed, that their discriminating marks are sometimes with difficulty detected.” Sir A. avers that three distinct species, very different in their nature, in their treatment, and in their results, have been described and classed under the indiscriminate appellation of “fracture of the neck of the thigh-bone.” Hence, he thinks, have arisen the differences of opinion, which have led to great doubt and discussion respecting the process which Nature employs for their cure. He justly observes, that less hypo-

thetical reasoning, and more attention to the developement of such accidents, *by dissection*, would have prevented much of the discussions and discrepancies in question.

These accidents are more frequent than dislocations of the thigh-bone. Thus, in St. Thomas's and Guy's Hospitals, not more, on an average, than two dislocations are annually seen ; whereas, the wards are seldom without an example of fracture.

The three species of fracture are as follows :—1st. Fracture through the neck of the bone, entirely *within* the capsular ligament. 2dly. Fracture through the neck of the thigh-bone, *at its junction with the trochanter major*, and consequently, *external* to the capsular ligament. 3dly. Fracture through the trochanter major, *beyond its junction with the cervix femoris*.

1. *Within the Capsular Ligament.* The appearances which are produced by this fracture, we shall give in the words of our author, as we cannot abbreviate the language without destroying the sense.

“ The leg becomes from one to two inches shorter than the other, for the connexion of the trochanter major with the head of the bone by means of the cervix being destroyed by the fracture, the trochanter is drawn up by the muscles as high as the ligament will permit, and consequently rests upon the edge of the acetabulum and upon the ilium above it. This difference in the length of the limbs is best observed by desiring the patient to place himself in the recumbent posture on his back, when, by comparing the malleoli, it will be found that one leg is from one to two inches shorter than the other. The retraction thus produced is at first easily removed, by drawing down the shortened limb, when it will appear of the same length with the other ; but immediately this extension is abandoned, the muscles draw it into its former position ; and this appearance may be repeatedly produced by extending the limb. This evidence of the nature of the accident continues until the muscles acquire a fixed contraction, which enables them to resist any extension which is not of the most powerful kind.” 118.

Another circumstance which marks the nature of this injury is, the *turning outwards of the foot and knee*—a state produced, in great part at least, by the numerous and strong rotatory muscles of the hip-joint, which proceed from the pelvis to be inserted into the thigh-bone, and to which very feeble antagonists are provided.

“ Directly that the bed-clothes are removed, two circumstances strongly arrest the attention of the surgeon, namely, the diminished length of the injured limb, and the eversion of the foot and knee. In

the dislocation upwards, the head and neck of the bone prevent the trochanter from being drawn backwards, whilst the broken and shortened neck of the thigh-bone in fracture of this part, readily admits it; and hence the reason why the foot is inverted in the one case, and everted in the other." 119.

A few hours must elapse before the muscles acquire this fixed contraction—which is the reason that this accident has been mistaken for dislocation, and, consequently, that patients, even in hospital practice, have been exposed to useless and painful extensions. In this species of fracture, the patient suffers but little pain when perfectly at rest in the horizontal posture; "but any attempt at rotation is painful," more especially rotation inwards, because the broken extremity of the bone then rubs against the lining of the capsular ligament. The pain which is felt in this accident is in the upper and inner part of the thigh, opposite to the insertion of the iliacus and psoas muscles into the trochanter minor, or, sometimes, just below this point. The perfect extension of the thigh may be easily effected, but flexion is more difficult, and somewhat painful, especially in directing the thigh toward the pubes. In this accident, the trochanter major is drawn upwards towards the ilium, and the broken neck of the bone, attached to the trochanter, is placed nearer the spine of the ilium than the trochanter itself, by which alteration of position, the trochanter projects less on the injured, than on the sound side, and, consequently, is much more concealed than naturally, until the muscles waste from the duration of the injury, when it can be distinctly felt upon the dorsum ilii.

"In order to form a still more decided judgment of this accident, after the patient has been examined in the recumbent posture, let him be directed to stand by his bed-side, supported by an assistant, so as to bear his weight upon the sound limb; the surgeon then observes most distinctly the shortened state of the injured leg, the toes rest on the ground, but the heel does not reach it; the knee and foot are everted, and the prominence of the hip is diminished. On ordering the patient to attempt to bear upon the injured limb, he finds himself incapable of doing so, without considerable pain, which seems to be produced by the psoas, iliacus, and obturator externus muscles being put upon the stretch in the attempt, as well as by the pressure of the broken neck of the bone against the interior surface of the capsular ligament, and there will be a greater or less projection of the trochanter, proportional to the length of the fractured cervix femoris attached to it." 121.

Crepitus is not discoverable here when the patient is resting on his back with the limb shortened; "but, if the leg be drawn down, so as to bring the limbs to the same length, and rotation be then performed, the crepitus is sometimes observed

from the broken ends of the bone being thus brought into contact—but the rotation inwards most easily detects it.” 122. When the patient is standing on the sound limb, with the fractured limb unsupported, rotation *inwards* will sometimes discover the crepitus, as the weight of the limb brings the broken bones in apposition. This species of fracture is rarely seen in males, while the wards of an hospital are seldom without instances in females, especially aged females. “The more horizontal position of the neck of the bone, and the comparative feebleness of the female constitution, are probably the causes of this peculiarity.” The fracture within the capsule seldom happens but at an advanced period of life. Hence, our author imagines, has arisen the great confusion among surgeons of the highest character, respecting the nature of this fracture—for it has been represented, as happening at a period of life in which it never takes place. Old age, it is true, is an indefinite term; for in some, it is as strongly marked at sixty, as in others, at eighty years. “That regular decay of Nature which is called old age, is attended with changes which are easily detected in the dead body; and one of the principal of these is found in the bones, for they become thin in their shell, and spongy in their texture.” 123. Hence, the bones of old persons may be cut with a pen-knife, which is incapable of making any impression on them at the middle periods of life.

“Even the neck of the thigh-bone in old persons, is sometimes undergoing an interstitial absorption, by which it becomes shortened, altered in its angle with the shaft of the bone, and so changed in its form as to give an idea, upon a superficial view, of its having been the subject of fracture, so as to lead persons into the erroneous supposition of the bone having been partially broken and reunited: but it requires very little knowledge of anatomy, to distinguish, in the skeleton, the bone of advanced age from that of the middle period of life.” 124.

This fracture, Sir Astley observes, very rarely occurs under fifty years of age; and dislocation as rarely above that period; although there are exceptions, of course, to both these rules. Between fifty and eighty years is the most common period at which the fracture occurs; for, from the different state of the bone, the same violence which would produce dislocation in the adult, occasions fracture in the aged. That this state of bone in old age favours much the production of fractures, is shown by the slightest cause often occasioning them. In London, the most common cause is slipping from the flags down on the carriage pavement, though it is a descent of only a few inches. Another frequent cause is a *slight* fall on the trochanter major. Our author lays emphasis, and very pro-

perly, on the term *slight*, in order that the young surgeon may be on his guard against the supposition, that so important an injury must be the result of excessive violence. "Such an opinion is as liable to be injurious to his reputation, as that of confounding this accident with dislocation."

It has been asserted, that these fractures unite like those of other parts of the body; but the dissections which our author has made in early life, and the opportunities he has since had of confirming these observations, have convinced him, that the transverse fracture of the cervix femoris within the capsular ligament, does not unite by a bone—a circumstance which he has taught in his lectures for thirty years—"and this is a most essential point, as the reputation of the surgeon hinges upon it." Thus, Sir Astley was called to a case of this fracture, where the medical attendant had been promising, week after week, a union of the fracture, and the restoration of a sound and useful limb. After many weeks, the patient became anxious for further advice, and our author did all in his power to lessen the impression which the mistake had made; but he could not alter the result, which, of course, belied the confident predictions of the surgeon, and injured him in the eyes of the patient at least. It unfortunately happened too, that, in this case, the patient did not recover in the degree they usually do. We quote the following passage, and wish it to be engraven on the mind of every student.

"Young medical men find it so much easier a task to speculate than to observe, that they are too apt to be pleased with some sweeping conjecture, which saves them the trouble of observing the processes of nature; and they have afterward, when they embark in their professional practice, not only every thing still to learn, but also to abandon those false impressions which hypothesis is ever sure to create. Nothing is known in our profession by guess: and I do not believe, that from the first dawn of medical science to the present moment, a single correct idea has ever emanated from conjecture: it is right, therefore, that those who are studying their profession should be aware that there is no short road to knowledge; and that observations on the diseased living, examination of the dead, and experiments upon living animals, are the only sources of true knowledge; and that inductions from these are the sole bases of legitimate theory." 127.

We think the expression marked in italics, (by us) is rather too strong; and we could bring forward proofs of the justice of this opinion. We shall only allude to one very curious instance. Galen *conjectured* (for he had no proof whatever) that there was one set of nerves for sensation, and another for motion. If there be any faith in recent experiments on living animals, this conjecture of the ancient physician is likely to

prove a truth, and a very curious one too.* The general bearing, however, of the passage, offers most salutary counsel.

Although Sir Astley has never met with a single instance of bony union in transverse fractures of the cervix femoris within the capsular ligament, yet he is not so dogmatical as to assert that such never occurs, especially when we consider the varieties of direction in which a fracture may take place, and the various degrees of violence by which it may have been produced—as, for instance, when the fracture is through the head of the bone, and there is no separation of the fractured ends; or, where the bone is broken without its periosteum and the reflected ligament which covers its neck being torn—or when it is broken obliquely, partly within, and partly external to, the capsular ligament. After all, Sir Astley only wishes it to be understood that, if ever union takes place under the circumstances in question, it must be a very rare occurrence, as he has not yet met with a single example of it. The reasons which Sir Astley assigns for the non-union are as follow:—

First—the want of proper apposition in the bones: “for if the broken extremities, in any part of the body, be kept much asunder, ossific union is prevented.” This is proved by fractures of the patella, which are known to unite only by ligament—by experiments made on animals, where pieces of the radius, for instance, were cut out, leaving the ulna to prevent apposition, in which case, no ossific union took place—and, lastly, by examples in the human body, some of which we shall quote presently. But first, it is proper to state, that a case is related by Mr. Dunn, in the last volume of the *Medico-Chirurgical Transactions*, which seems to militate against Sir Astley’s position. Mr. Dunn’s case will be found in our *Periscope*, to which we refer for particulars. It is only necessary to state here, that three inches of the tibia were removed from a boy’s leg, where the ends of the bone projected, and where the fibula was fractured in two places. The leg was only an inch shorter than the other ultimately, though the bones were prevented from coming within an inch and a half, or two inches of each other, by the fibula. All the proofs we have, in this case, of *ossific* union, are grounded on

* We are aware that Galen made numerous experiments on animals before he came to this conclusion; but neither he, nor any man yet, has been able to show the slightest proof, that *separate* nerves were employed for sensation and motion. It is becoming probable that, in the same nerve, there is a portion of its structure derived from the cerebrum, and another portion from the cerebellum, and that to this is owing the diversity of function in, apparently, the same nerve.

the facts, that the boy was able to walk without crutches, and that, by compressing the space between the bones on each side, Mr. Dunn "could trace a continued line of bone." Now we must confess that this evidence of feeling through the integuments appears to us very equivocal—and nothing but post-mortem demonstration would induce us to place implicit belief in the physiological fact or assumption. In respect to the evidence, grounded on the boy's being able to walk, we shall quote the following case from the *Medical Records and Researches*, as related many years ago by Mr. Smith of Bristol.

"The boy was admitted into the Bristol Infirmary for disease of the tibia; and the diseased portion not exceeding more than from two to three inches in length, that part of the bone was removed by the saw. In a month the limb had acquired so much firmness, that the boy was permitted to walk about the ward, which he was able to perform tolerably well, and in six weeks no doubt was entertained of ossification having taken place in the uniting substance; at this time he sickened with small-pox and died.—Upon examination, the edges of the extremities of the tibia were found absorbed and rounded, and on the inferior portion, a bony callus had formed, about three quarters of an inch in extent; no ossific matter was discoverable in the greater part of the space originally occupied by the diseased bone, but a tough though thin ligamentous band extended from the superior to the inferior portion of the tibia.

In the above case it appears, that had the boy not died, it would have been firmly believed that ossific union had taken place. The fractures in the fibula, also, throw some doubt on the real state of the physiological question, as far as Mr. Dunn's case is concerned. In fine, from what we have seen, both in animals, and in human bones, that had been prevented from approximating, we are disposed to think that Mr. Dunn is deceived—and that the broken tibia is become agglutinated ossifically and ligamentously to the *fibula*, which, in such circumstances, becomes greatly enlarged, and thus adds to the stability and firmness of the limb, while the intermediate space between the ends of the *tibia* becomes filled up by a firm, ligamentous substance, that has given Mr. Dunn the idea of a bony continuity.

The case in question, however, does not, in the least degree, affect the position of Sir Astley, respecting non-union of the neck of the thigh-bone within the capsular ligament—which non-union depends on another principle, as the reasons which we are in the course of developing will evince.

Second Reason:—The want of pressure of one bone upon the other, even where the length of the limb is preserved—a circumstance that will operate in preventing ossific union in

cases where the capsular ligament is not torn, and it has not been found torn in any of those cases examined by our author. The cause of this want of pressure is thus explained by Sir Astley :—

“ From the increased determination of blood to the capsular ligament and synovial membrane, a superabundance of serous synovia, that is, synovia much less mucilaginous than usual, distends the ligament, and thus entirely prevents the contact of the bones, by pushing the upper end of the body of the thigh-bone from the acetabulum. After a time, this fluid becomes absorbed, but not until the inflammatory process has ceased, and ligamentous matter has been effused into the joint, from the interior of the synovial membrane.” 130.

That pressure between the broken extremities of bones conduces greatly to their union, is well shown where two broken bones overlap each other. On that side on which they are pressed together, there will be found an abundant ossific deposit, but scarcely any change on the opposite sides.

“ When a fracture occurs amidst muscles, these which are inserted into the fractured part of the bone have generally a tendency to keep the extremities of the bones together, with some few exceptions ; but when a fracture occurs in the neck of the thigh-bone, the muscles have only an influence upon one portion of the fractured bone ; and this influence serves to draw one part from the other.” 131.

Thirdly. But the third and principal reason assigned by our author for the want of union in this fracture is the absence of ossific action in the head of the thigh-bone, when separated from its cervix, its life being then solely supported by the ligamentum teres, which has only a few minute vessels ramifying from it to the head of the thigh-bone—circumstances very beautifully shown in the plate connected with this part of the subject.

“ But here it may be observed, that the neck and head of the thigh-bone are naturally supplied with blood by the periosteum of the cervix, and by the reflected membrane which covers it ; and that when the bone is fractured, if the periosteum be torn through, and the reflected membrane be broken, to which there can be only very rare exceptions, all the means of ossific action are, in consequence of such fracture and laceration, necessarily destroyed in the head of the bone. Scarcely any change therefore takes place in the head or neck of the bone ; no deposit of cartilage or bone similar to that of other fractured bones, is produced ; but the deposit which does take place, as will be seen in the plate of fracture of the neck of the thigh-bone, is a deposition of ligamentous matter, covering the surface of the cancellated structure.” 132.

Appearances Post-mortem. The head of the bone remains in the acetabulum attached by the ligamentum teres. Upon parts of the bone are small white specks covered by the articular cartilage. The cervix is sometimes broken directly transverse, at others with obliquity. The cancellated structure of the broken surface of the head and cervix is hollowed by the occasional pressure of the neck attached to the trochanter and consequent absorption—and this surface is sometimes partially coated with ligamentous deposit. The cancelli are rendered firm and smooth by friction. Portions of the head of the bone are broken off, and either floating loosely, or attached by means of ligament. In respect to the neck, attached to the trochanter, it is, in a great degree, absorbed, and but a small portion of it remains. Its surface is yellow and resembling ivory, if the bones have rubbed together. In some examples of this fracture Sir Astley has seen a few ossific deposits manifested around this small remaining part of the neck of the bone, and also upon the trochanter major and thigh bone below it. The capsular ligament becomes much thickened, and the synovial lining greatly changed by inflammation, being also much thickened, and containing a large quantity of serous synovia, mixed with flakes of ligamentous matter formerly produced by inflammation of the membrane.

It is well known that two specimens of (supposed) union by bone of the cervix femoris have been sent to the College Museum. That sent by Mr. Liston of Edinburgh is the most curious and most imposing; but on minutely examining it, a few months ago, we became convinced that there never was an entire fracture of the cervix within the capsular ligament. We observe also, that the late Mr. Wilson expressed himself thus:—"I have examined very attentively these two preparations, and cannot perceive one decisive proof, in either, of the bones having been actually fractured."

"It appears, then, from this account of the dissection of those whose bodies are examined after having suffered from this fracture, that no ossific union is produced; that nature makes slight attempts for its production upon the neck of the bone, and upon the trochanter major; but scarcely any upon the head of the bone; and that if any union be produced, it is by ligament only." 135.

Our author made several experiments on living animals with the view of illustrating this point; but, owing to the difficulty of effecting a fracture of the cervix femoris in the proper place, he only succeeded in four instances. These all confirmed the deductions already before our readers. They may be seen in the collection at St. Thomas's Hospital.

Treatment. Various modes of management have been proposed and adopted in the treatment of this fracture; but in no one instance, as far as our author is acquainted, with success. We shall therefore be excused from detailing the mechanical measures which have been employed, and merely state what Sir Astley himself is inclined to adopt.

"Baffled in our various attempts at curing these cases, and finding the patient's health suffering under the trials made to unite them, I should, if I sustained this accident in my own person, direct, that a pillow should be placed under the limb throughout its length, that another should be rolled up under the knee, and that the limb be thus extended for ten days or a fortnight, until the inflammation or pain have subsided. I should then daily rise and sit up in a high chair, in order to prevent a degree of flexion which would be painful. Our hospital patients, treated after this manner, are allowed in a few days to walk with crutches; after a time, a stick is substituted for the crutches, and in a few months they are able to use the limb without any adventitious support.

"The degree of recovery, in these cases, is as follows: if the patient be very corpulent, the aid of crutches will be for a long time required; if less bulky, a stick only will be sufficient; and where the weight of the body is inconsiderable, the person is able to walk without either of these aids, but drops a little at each step on that side, unless a shoe be worn having a sole of equal thickness to the diminished length of the limb. In every case, however, in which there is the smallest doubt whether it be a fracture within, or external to the ligament, it will be proper to treat the case as if it were the fracture which I shall hereafter describe, and which admits of ossific union." 144.

As danger to life is sometimes involved in these accidents, especially in old and infirm persons, the surgeon should be guarded in his opinion as to the result. "Lameness, says our experienced author, in the transverse fracture, is sure to follow; but its degree cannot, at first, be exactly estimated." Finally, we may state that the dissections of that excellent anatomist and surgeon, Mr. Colles of Dublin, confirm the doctrines delivered by Sir Astley Cooper for thirty years past in the Borough School—a coincidence which must be gratifying to the distinguished author of the work under review.

Fracture of the Cervix external to the Capsule. The symptoms of this accident in some respects so nearly resemble those of the fracture within the capsule, that considerable attention is required to distinguish them accurately—for their results are very different. We cannot refrain from introducing the diagnostic symptomatology in the plain and expressive language of the author.

"In this accident the injured leg is but little shorter than the other; the foot and toe on that side are everted, from the loss of

support which the body of the thigh-bone sustains in consequence of the fracture; much pain is felt at the hip, and on the inner and upper part of the thigh, and the joint loses its usual roundness. These, then, are all marks of similarity between the two accidents; but still there are many distinguishing signs. First; This accident occurs frequently at the earlier periods of life; for it happens in the young, and in the adult under fifty years of age: I have known it at a later period, but less frequently; therefore, when the above symptoms are seen at any age under fifty years, it will be generally found to be a fracture external to the capsular ligament, and capable of having ossific union produced in it.

"Secondly; These cases may be also in some measure distinguished by the severity of the accident which produces them; whilst the internal fracture happens from very slight causes, this, on the contrary, is produced either by severe blows, from falls from a considerable height, or from laden carriages passing over the pelvis.

Thirdly; It may be generally known by the crepitus which usually attends it upon slight motion, for it is rarely necessary to draw the limb down, to distinguish the grating of one bone upon the other. and this arises from the less retraction of the limb." 146.

This accident is much more painful than fracture within the ligament, especially on motion—the leg and thigh become much swollen—there is high irritative fever—and many months elapse before the patient recovers the use of the limb; which is rarely more than an inch shorter than the other.

On dissection, the seat of the fracture is found to vary much, in different examples; but it is always external to the capsular ligament—in general it is at the root of the cervix femoris. Here our author introduces valuable cases from Mr. Powell of Surrey-Street, Mr. Wray of Fleet-Street, Mr. Travers and Mr. Oldnow of Nottingham, for which we must refer to the original.

"We now see the reason of the difference of opinion respecting the union of the fracture of the neck of the thigh-bone. In the internal, the bones are not applied to each other, and the nutrition of the head of the bone is imperfect, but in the external, the bones are held together by the surrounding parts, and easily kept in apposition by external pressure." 155.

In the treatment of this injury the length of the limb is preserved by applying a roller around the foot of the injured leg, and by binding the foot and ankles firmly together, so as to prevent their retraction, and thus render the uninjured side the splint to that which is fractured, giving it a continued support. A broad leather strap should also be buckled round the pelvis, including the trochanter major, to press the fractured portions of the bone firmly together. The following plan our author has also known to succeed:—

"The patient being placed on a mattress on his back, the thigh

is to be brought over a double inclined plane composed of three boards, one below, which is to reach from the tuberosity of the ischium to the patient's heel, and the two others, having a joint in the middle by which the knee may be raised or depressed; a few holes should be made in the board admitting a peg which prevents any change in the elevation of the limb, but that which the surgeon directs; over these a pillow is thrown to place the patient in as easy a position as possible." 156.

When the limb has been thus extended, a long splint is to be placed upon the outer side of the thigh, to reach above the trochanter major, and to the upper part of this is fixed a strong leather strap, which buckles round the pelvis, so as to press one portion of the bone upon the other. The lower part of the splint is to be fixed with a strap round the knee, to prevent its position being moved. The limb must be kept very steady for two months, at the end of which time the patient may be permitted to rise from his bed, provided the attempt does not give him much pain; but he is still to retain his outer splint for a fortnight longer, with the straps round the pelvis. By this treatment he ultimately recovers a very good use of his limb.

Fracture of the great Trochanter. This sometimes happens through the trochanter major obliquely, the cervix femoris not participating. It occurs at every period of life, and the symptoms, according to Sir Astley, are these:—the leg is very little, and sometimes not at all, shorter than the other—the foot is benumbed—in some cases the patient is unable to turn in bed without assistance, and the attempt gives him great pain. The broken portion of the trochanter major is, in some cases, drawn forwards toward the ilium; in others, it falls towards the tuberosity of the ischium; but it is generally widely separated from that portion which remains connected with the neck of the bone. The foot is greatly everted—the patient cannot sit, without much pain—crepitus is with difficulty discovered if the trochanter is either much fallen, or much drawn forwards.

"The distinguishing marks of this accident are, eversion of the foot and the altered position of the trochanter major, attended with crepitus under very extended motion of the upper part of the limb; and a little diminution of the length of the limb." 158.

This fracture Sir Astley has found to unite very firmly, and more quickly than when the cervix is broken at the root of the trochanter. The patient recovers with a very good use of his limb.

A very interesting case of this kind is drawn up by Mr. Harris, of Reading, in the management of which Sir Astley Cooper and Mr. Brodie assisted. Two or three other very

illustrative cases are introduced by the able author himself, for the details of which we must refer to the original work.

Fractures below the Trochanter. When this fracture is just below the two trochanters, it is a difficult accident to manage, and great distortion is the consequence of mismanagement. The iliacus internus and psoas muscles, assisted perhaps by some others, draw the broken bone forwards and upwards, so as to form nearly a right angle with the body. If pressure be made on the projecting bone in this case, it only adds to the patient's sufferings, without preserving the bone in its proper site. This union exceedingly overlaps, and is very feeble.

"To prevent this horrid distortion and imperfect union, two principles are required to be strictly observed; the one is to elevate the knee very much over the double inclined plane, and the other to place the patient in a sitting position, well supporting him by pillows during the process of union; the degree of elevation of the body which is required will be readily ascertained by observing the approximation of the fractured extremities of the bones; and this position is demanded, to relax the psoas and iliacus muscles, and thus prevent the elevation of the upper part of the bone. In this manner, and by this only, can the great deformity I have described be prevented. When by this posture the extremities of the bones are brought into proper apposition, and all projection of its upper portion is removed, either the splints may be applied which are commonly used in fracture of the thigh-bone, or, what is better, a strong leather belt lined with some soft material, should by means of several straps be buckled around the limb." 175.

We have thus almost insensibly extended the review of a single division of the work before us to a long article; and must therefore reserve the rest for our next number. The subject is highly important, and we are anxious that the pages of our Journal should contain a greater than usual proportion of materials from a work that bears the impress of one of the first masters of surgery in the present advanced state of that science. Sir Astley Cooper has produced a GREAT BOOK—and he has put it out of the power of the severest cynic to say that, in this case, it is a GREAT EVIL. On the contrary, we very much fear that we shall not "meet its like again" in our day—unless from the author himself. We sincerely hope that Sir Astley Cooper will continue (we were going foolishly enough to say at his *leisure* moments) to commit to the imperishable records of the press a portion, at least, of that immense store of valuable and practical knowledge of which he is the depository. By this process he will give a kind of ubiquity to himself, and thus confer a lasting obligation on his profession, and, through it, on mankind at large.

Quarterly Periscope.
OF
PRACTICAL MEDICINE;
BEING THE
SPIRIT OF THE PUBLIC JOURNALS,
FOREIGN AND DOMESTIC.

—♦—

Paucis libris immorari et innutriti oportet, si velis aliquid trahere, quod in fideliter hæreat. SENECA.

*Duo vitia vitanda sunt in cognitionis et scientiæ studio. **** Alter vitium, quod quidam nimis magnam operam conferunt in res obscuras et difficiles, easdemque non necessarias. CICERO.*

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1. *Series of Metastatic Inflammations.** The subject of Dr. Fallot's paper was a French emigrant, who spent the first twenty or more of his life in England, and experienced many vicissitudes of fortune. In 1810 he was employed by an English mercantile house as a supercargo to the Isle of France, and to Batavia, where he experienced an attack of cholera morbus, but was cured by calomel in large doses. In 1814 he returned to England—got married, was turned out of his employ—quarrelled with his wife, and separated from her. He then embarked in a merchant vessel for the Mediterranean, where he contracted such an inveterate itch that he came home like a leper. He was cured of this in four months by topical medicines—nevertheless a pruriginous affection remained which annoyed him a good deal in sudden changes of weather, and drinking liquors. In 1817 he travelled to Germany as a commercial agent—had some success, and became rather easy in circumstances. In the summer of 1818 he became affected with a humid eruption (*dartre humide*) which occupied the arms and hands, and which was subdued by a white ointment, the composition of which he did not know. After this event he began to perceive that his disposition was becoming more sombre, irritable, and unsettled. He now drank hard, to drown melancholy, and plunged into every kind of excess and debauchery, during which he suffered a severe attack of gonorrhœa. It is not difficult to imagine that this kind of life did not contribute much to tranquilise our patient's mind. In 1820 he began to experience considerable uneasiness in the epigastric region—his digestion became slow

* Dr. Fallot, Physician at Namur. *Journal Complémentaire*, April 1822.

distressing—the bowels torpid—his spirits depressed. He now reproached himself for the manner in which had used his wife and deserted his family. He took measures to be reconciled to them, and succeeded. This procured a temporary calm for his troubled mind. But ennui again assailed him, and it was on the 15th of September, 1821, that he solicited the advice of Dr. Fallot at Namur, whither he had repaired from Aix-la-Chapelle. His complaint, at this time, was a deep seated and acute pain in the right knee, which he attributed to a twist in getting out of the voiture two days previously.

With the exception of want of sleep, the other functions were not materially disturbed. The part affected was very much swelled, red, and painful, on the slightest movement. The patient informed our author that he had latterly lived free, eating very heartily, and drinking porter, wine, and spirituous liquors. Twenty leeches were applied, a lavement exhibited, and acidulated ptisan ordered for drink. 16. The inflammation but little reduced. Another application of the leeches, and continuance of the regimen. The pain was now removed, and there only remained some sense of numbness and weight in the part, which were dispersed by the 25th, when he called to bid adieu to his doctor. On the evening of the 26th, (having determined to set off to see his family the next morning,) he supped heartily, and drank freely. Scarcely had he laid down in his bed, when he experienced severe pain in the epigastrium, nausea headach. Having drunk some tea and vomited, he felt easier, but on getting into the diligence next morning, he was seized with severe rigor, pains in his joints, and headach, succeeded soon by tension and exquisite sensibility of the abdomen, constipation, and thirst. In this state Dr. Fallot again visited the patient. His tongue was now red and dry, the pulse frequent and hard—the features sharp. He saw immediately a case of gastro-enteritis complicated with peritonitis. Twenty-four leeches to the epigastrium, tepid bath—emollient embrocation—lavements—gum water for drink. In the evening the above mentioned symptoms were much mitigated, but a new train of evils had appeared. He was harassed excessively with ischuria. Sixteen leeches to the pubic region, and the other means continued. 28th. Had a bad night, the urine passing guttatim, and with intolerable sense of scalding (cuisson insupportable.) The urine was red as blood. The gastro-enteritic symptoms being nearly gone, the patient expressed a desire to eat, with which the doctor very properly refused to comply. The patient, however, determined to indulge his appetite; and the doctor took his congé in consequence. On the 30th Dr. F. was again summoned. The urine was again very scanty, the abdomen tense, the region of the bladder prominent, skin hot, tongue dry. The patient had imprudently and vainly been attempting to draw off his own water. Twenty-four leeches to the hypogastrium, anus, and perineum, after which the patient was plunged into a tepid bath, where he had not been more than a quarter of an hour before the urine began to flow abundantly. He was now grown a little wise by

experience, and conformed to the rules laid down for his guidance. But meeting with some pecuniary disappointments, he was forced to leave his "Auberge," and retire to an obscure lodging, where he gave Dr. F. the history of his former life, of which we have presented the particulars at the beginning of this paper. Dr. F. now saw at the bottom of all the complaints just described, the *repressed cutaneous affections* under which the patient formerly laboured, and proposed an outlet on the surface, in the form of a cautery on the arm. This was complied with on the 17th of October. While waiting for a remittance, and while living in the most frugal manner possible, he enjoyed better health than he had done for many years. On the evening of the 30th of October, (having received his remittances, and being on the eve of departure for his family,) he drank a few glasses of rum grog, and was that night seized again with horrible pain of head, heat about the epigastrium, flatulence, constipation of the bowels, lassitude, despondency. Considering the cerebral affection as only sympathetic of the gastric, Dr. F. merely prescribed diluents and low diet; but he was deceived, for the pains in the head continued after the stomach had become easy, and the bowels free. In a little time, however, the headach gave way. The right elbow now became red, swelled, and painful. Blisters did not relieve it; but the burning of three moxas dissipated the inflammation. On the 25th November there was a new attack of gastro-enteritis, complicated this time with hepatitis, the liver being swelled out beyond the false ribs, and the hypochondrium so painful that he could not bear the weight of the bed-clothes. The patient vomited an oily, green, and most acrid bitter matter, the pulse being very quick. Twenty-one leeches to the epigastrium and region of the liver—poppy fomentations to the side. The pain and swelling subsided, and an icteritious suffusion overspread the whole surface of the body. The patient lost appetite, got weaker and thinner, became melancholic, and appeared disgusted with life! When these symptoms had gone to an extent that gave great alarm to Dr. Fallot, lest he had carried his epigastric leeching rather too far, a copious darts eruption appeared on the left arm and thigh, the anorexia and general malaise immediately vanishing. He was advised not to apply any thing but warm water to this eruption; but, overcome by the itching, he washed the parts with a preparation of lead. This was on the 5th of December, and on the 8th the symptoms of visceral irritation were kindled up with an intensity greater than ever. The depletive measures being again proposed, the patient positively refused to comply, and swore that he would eat and drink as much as he possibly could, his life being a load of misery to him! He therefore set to forthwith on a *befstek* and a bottle of wine, to the terror and amazement of the doctor. The night was spent in great distress—and next day he passed to the other extreme, and took nothing whatever. On the 11th he received agreeable news from his family, which cheered him up a little; but on the 12th, things took a most alarming turn. About mid-day he was found lying on his bed, his eyes open, and in a

complete state of insensibility. Dr. Fallot did not see him till eight o'clock in the evening, when he found him in the following condition:—face slightly tumefied—mouth closed—teeth firmly in contact—eyes fixed and insensible to the light—sense of hearing apparently obliterated—and the olfactory sense in the same condition, for no sternutatories had any effect. Our author endeavoured to rouse the sensibility of the skin and the mucous membrane of the intestines, by mustard cataplasms to the former, and stimulating glysters to the latter, but without success. Towards midnight strong convulsions supervened on this state of insensibility, and threatened immediate destruction. At this critical moment a profuse perspiration broke out over the whole surface of the body, of the most intolerable fetor, and the convulsions gradually subsided. This fetid perspiration continued all next day, and was of such a nauseabund quality that Dr. F. could not get rid of the odour and even taste of it for many days. The patient was now in a state of such extreme debility that his voice was hardly audible. Some wine was administered, and he revived a little. On the evening of the 13th, his lower extremities were observed to be partially covered with large pustular eruptions filled with purulent matter, (*“de gros boutons isolés et remplies de pus,”*) while from the cautery on the left arm flowed an ichorous discharge, having the exact fetid odour of the perspiration above mentioned. He slept some hours during the nights of the 13th and 14th of December—the appetite returned keenly—the spirits got up—the strength improved, and by the 25th December, he was able to set out on his journey to England, where he has since continued in good health.

The foregoing case is, we think, interesting, and affords a good illustration of those mutations and conversions of diseases, or at least of their forms, which so frequently cross our path in practice. A doubt may exist whether the series of visceral irritations and inflammations were owing to repelled cutaneous affections in the beginning. It is to be remembered that after a life of intemperance and debauchery on the Continent, he evinced dyspeptic symptoms, which were succeeded by acute inflammation in one of the lower extremities, most likely of a rheumatic or gouty nature, and it was after the dispersion of this local inflammation that the train of internal maladies began to make their appearance. Although, therefore, we are well aware of the importance of cutaneous eruptions, and of the danger of repelling them; yet we should be inclined to view the series of phenomena above detailed, as owing, in a great measure, to erratic gout or rheumatism. We leave the facts, however, for the consideration of our brethren at large.

2. *Cynanche Cellularis*.* The case related by Dr. Gregory is, unquestionably, not of common occurrence, especially in the parts here

* Dr. Gregory. Med and Phys Journal. No 294.

affected. The patient was a servant maid, 25 years of age, who was attacked, on the 13th of February, 1821, with feverish symptoms, and pains of the back part of the neck, resembling rheumatism, for which she was bled, and had some opening medicine. The following day, she came under Dr. Gregory's care, evincing considerable fever, attended with great difficulty of swallowing, and swelling, hardness, and some tenderness of the external parts of the throat—chiefly at the junction of the sternum with the clavicles. Nothing particular could be seen on inspection of the fauces. No hoarseness nor difficulty of breathing. During the night, the difficulty of deglutition increased, and the breathing became impeded. Venesection to sixteen ounces, with very trifling relief. Mucus now began to be collected in quantity about the glottis, and was expectorated with great pain. The difficulty of breathing increased to such a degree, that the tongue assumed a blue colour. Blood was twice drawn from the arm, but without more than momentary relief. Leeches and fomentations were resorted to, but the patient died on Monday, the 19th of February, seven days from the invasion of the disease.

On dissection, the cellular membrane beneath the skin of the throat, and around the trachea, as well as that which connects the pharynx and palate to the surrounding parts, was every where in a state of disease—"doubtless the result of inflammatory action." In some places, actual sphacelus had occurred, in others, a state that might be termed imperfect suppuration. The same disorganized condition of the cellular membrane pervaded the whole extent of the anterior mediastinum, even as low as the ensiform cartilage. The mucous membrane of the palate, pharynx, œsophagus, and trachea, was healthy, except that it was covered with a preternaturally abundant secretion of mucus. The lungs and other viscera were sound.

The above disease appears to us, to be an unequivocal specimen of that dangerous species of erysipelas, which attacks the cellular membrane under the skin and between the muscles. In the year 1809, the crew of His Majesty's ship, Royal Oak, suffered severely from this disease, while cruising in the Bay of Biscay. Some lives were lost, and the disease appeared to be contagious, running through a considerable number of the ship's company. It would destroy the whole cellular membrane of a limb in a few days, and when the integuments were slit open, they would fall completely off the muscles, which were left as clean as if they had been carefully dissected. Nothing but free and early incisions through the integuments, so as to allow of the exit of matter and cellular sloughs, saved the life or limb. In several instances it attacked the trunk of the body, and two or three cases proved fatal. The carpenter, Mr. Dalrymple, died in a state of coma. The fever attending the disease was of a typhoid type, and did not bear depletion.

Mr. Thompson, who is now in one of His Majesty's yachts, was surgeon of the Royal Oak at the time, and had a most arduous task to go through. The writer of this article occasionally visited his patients with him.

3. *Variola—Vaccina*.* Dr. Forbes, so favourably known to the profession by his translation of Laennec, has witnessed one of those unfortunate epidemics, occasioned by the want of a general adoption of vaccination, and the artificial introduction of variola among unprotected subjects. Dr. F. considers it not only unfair, but decidedly injurious to the cause of vaccination, for medical men to attempt to maintain the same high ground which they formerly assumed, in respect to the almost infallible prevention of small-pox by cow-pox. Yet, "happily, the plain truth is still extremely consolatory;" for every successive year, and every fresh diffusion of the variolous pestilence, tend, more and more, to confirm the belief that the proportion of cases in which vaccination affords perfect security against small-pox, will be extremely great. The same progressive and accumulating experience proves that, "in the small proportion of cases wherein cow-pox fails to prevent variola, it almost invariably, and greatly, mitigates the terrible symptoms of that disease." Our able author thinks, that if, on the promulgation of vaccination, we had been promised *one half* of the benefits which are now proved to result from it, we should never have heard those lamentations, fears, and despondencies, and still less any of that decided preference of small-pox, which are to be found among many members of the community, and even of the profession. The mind is dissatisfied because it has been disappointed—

Jam tenet Italiam, tamen ultra pergere tendit.

The district which was the scene of the variolous epidemic under review extends along the coast, about 20 miles, and inland about 10 miles, bearing a population of about 30,000 souls. Since the year 1812, variolous inoculation had been almost entirely disused, so that nearly all the children born in the district, since the period above mentioned, had either been vaccinated, or left unprotected *in toto*. A considerable proportion were, unfortunately, in the latter condition, owing to vaccination having been much less practised, especially among the lower classes, than it ought to have been. In 1821, when the inhabitants of Chichester were in great trepidation, the importunities of many persons among the middle and lower orders, to have their children inoculated, were very great; but, to the honour of the profession there, variolous inoculation was uniformly denied—except to such persons as were decidedly exposed to the infection, and whose parents refused the protection of vaccination. Some extra-professional inoculators, however, were at work, and there were nearly 300 cases, casual and inoculated, of small-pox in Chichester. In the vicinity, several extra-professional inoculators spread the disease in all directions, some two or three thousand people having been inoculated!

"A few instances of the failure of vaccination entirely to prevent the attack of variola, were magnified into a total failure of its pro-

* Dr. Forbes. Med. Repos. September. 1822.

tecting powers, while the opinion of perfect security, afforded by the variolous inoculation, was loudly and eagerly proclaimed." In this state of alarm and prejudice, one of the regular practitioners gave way, and his example was followed, as a matter of course and almost of necessity, by his brethren. Accordingly, the surgeons of Emsworth, Havant, and the vicinity, inoculated with great vigour during a period of six or eight weeks—most of these gentlemen, however, representing to the parents and friends of the unprotected, the preferable security of vaccination.

In the above period, the surgeons inoculated more than 1400 persons not previously vaccinated—the whole number, by regular and irregular practitioners, being considerably above 3000. The inoculated small-pox was very mild, the surgeons not having lost more than six or seven cases out of 1450. What was the proportion of deaths in the practice of the itinerants could not, of course, be ascertained—it was evidently, however, very small. There were not more than 136 or 140 cases of casual small-pox among the unprotected. Such was the diffusion of the variolous infection, that it is highly probable that, every individual, who had been vaccinated for many years past, was now exposed to its influence.

"Many striking facts, illustrating the very thorough exposure of the vaccinated, were mentioned to me by almost every surgeon. In a vast number of families, children were inoculated with small-pox, whose parents or elder brothers and sisters had been vaccinated, and who now acted as nurses to their less fortunate juniors. In one family, consisting of eleven, the four elder children had been vaccinated a good many years ago; on the present occasion, the remaining seven were inoculated with small-pox. All the former completely escaped, though they all lived, and some of them slept, together. In one family, consisting of a good many members, all the children were inoculated, except one, to whom the surgeon, on account of a recent burn, refused to give so severe a disease. This child was vaccinated, and resisted the small-pox infection, though living surrounded by, and sleeping with, its pestilential brethren. Hundreds of instances, affording precisely similar results, and many of them equally strong, could be mentioned. In a good many families the remaining children were vaccinated, after the casual small-pox had made its appearance in some of the members, and all escaped (with a single exception,) in whom the vaccine vesicle had time to form. This effect was witnessed in several families, in which death followed the natural small-pox.

"Under all these circumstances of most extensive and most intimate exposure, about eighty cases of small-pox, in persons previously vaccinated, came under the observation of all the surgeons of the district (nineteen in number,) during the whole course of the epidemic. All these cases (with a single exception) were completely *modified*, according to the now technical meaning of that word; and, although a few had considerable eruptive fever, and a still smaller number had a considerable eruption of pustules, the disease almost

uniformly exhibited the rapid declension characteristic of the secondary affection, and none of the patients were at any time considered to be in danger. As all these subjects exhibited the disease in the *modified* form, it seems to follow, as a necessary consequence, that they had all been vaccinated, and had properly undergone the vaccine process,—as it is only thus we can account for the *modified* character in any case; it is, however, proper to state, that only a very small proportion (about one-sixth) were known to the surgeons to have undergone the process satisfactorily. In a great majority of these cases of secondary or modified small-pox, the disease was extremely slight, consisting, in some, of a trifling degree of febrile disorder for one or two days, followed by an eruption of a few pustules; and in others, of an equally slight eruption, with scarcely any perceptible fever."

Dr. Forbes has mentioned one exception to the modifying power of vaccination. This was a child twelve years of age, who, after having been casually exposed to the infection of small-pox, was vaccinated by one of the surgeons in Chichester. The arm put on the usual appearances, and the disease went through its regular stages. Three weeks, however, after the period of vaccination, and apparently without being again exposed to variola, the child was seized with the latter disease and died.

Dr. F. received accounts from his medical friends of 680 cases of previously vaccinated individuals subjected by them to variolous inoculation. Of this number only about 30 cases are reported as exhibiting any indication of a constitutional affection from the small-pox virus. In all these cases the resulting disease was completely modified, and with one or two exceptions, extremely mild.

So much for the protection of vaccination. There were seen, during this epidemic, nineteen well-authenticated cases of second attacks of small-pox—in most instances after inoculation. Some of these secondary attacks nearly proved fatal.

Upon the whole, the effect of this epidemic is, our author thinks, "a diminution of prejudice against vaccination, and an increased confidence in its preventive powers," among the common people. This is a great advantage, and we have only to thank our able author for his clear, perspicuous, and well written communication on so important a subject.

4. *Puerperal Fever.** Mr. Moir relates a case of puerperal fever, and accompanies it with some observations which we deem to be of an extraordinary nature. We shall first give the outline of the case itself. A lady, in the 28th year of her age, was delivered (breech presentation) at three o'clock, on the 19th June, 1822, and seemed to be doing well through the night. Next morning, however, her pulse was feeble, and she had a fatigued appear-

ance. The uterus felt harder than usual, and there was some abdominal tenderness, apparently from flatus. The lochial discharge was natural. At 2, p. m. she had a rigor, accompanied with much pain and tumefaction of the abdomen, and a dull heavy pain in the forehead. Her countenance now appeared pale, and expressive of great anxiety—her breathing was short and frequent, but not laborious—skin hot—pulse 120, weak and easily compressed—abdomen greatly swelled, and tender to pressure—some sickness and faintness; but “the chief seat of uneasiness was in the uterus and right iliac region.” When perfectly quiescent, the pain could be tolerated without complaining; but the least movement of the body, or pressure on the part, rendered it excruciating. An ordinary glyster brought away “two full costive and fetid evacuations.” Even this produced such a degree of exhaustion that both wine and æthereal cordials were necessary. In the evening, although some relief had followed the enema, all things had got worse again—the abdominal pain had not decreased—the headach was greater—the pulse 130, small, and fluttering. The cordial medicine was continued, and a drachm of the tincture of hyoscyamus to be taken immediately.

On the 21st, the symptoms were aggravated—pulse 140, small and equal—breathing short and hurried—cheeks a little flushed, while a death-like paleness overspread the rest of the face—headach unabated—skin hot—abdomen swollen. Three stools had been procured by an enema—lochial discharge natural. A dose of castor oil; and the cordial mixture to be continued. At four in the afternoon manifest relief had resulted from three evacuations by the castor oil. Much flatus had come away; but the state of the pulse and other symptoms was not altered—the debility was increased. Two glasses of wine, with panada, were ordered in three or four hours. In the evening the alarming symptoms had increased, though the abdominal swelling had diminished—pulse 150, and remarkably feeble—cessation of the mammary secretion—lochial discharge continued, though pale. The cordial mixture was ordered to be repeated; and an anodyne draught with ʒj. tinct. hyoscy. and ℥xx. tinct. opii, at bed-time. 22d. All the symptoms more favourable—had slept and perspired in the night—pain in the head and abdomen greatly relieved—swelling of the belly much diminished—pulse 130 and stronger—tongue clearing at the edges. A dose of castor oil—some wine. From this time her convalescence went on regularly.

Now on this case we shall take the liberty of remarking that, so far from considering the above-described symptoms as unequivocally marking it “the malignant puerperal fever described by Hulme, Doublet, and other authors,” we unhesitatingly pronounce it to be a very exquisite specimen of what Dr. Marshall Hall has admirably described, though somewhat vaguely denominated, “a serious morbid affection chiefly occurring after delivery, &c. from various sources of irritation and exhaustion.” The principal source of this

irritation Dr. Hall has traced to a *disordered and loaded stomach and bowels*. In short, if any one will turn to Dr. Hall's little volume to our review of it in the first volume of this series, p. 195 see the disease, denominated by Mr. Moir "malignant puerperal fever," fully delineated. We cannot therefore but deplore the sweeping dogma that would amalgamate this affection with puerperal fever, or puerperal peritonitis, and proscribe the language in a complaint where it is our principal resource. the peculiar opinion of Mr. Moir's old preceptor, Dr. Hall, that in real puerperal fever the lochia continue, and in hysteritis or peritonitis they are suppressed, we can only consider it a little hobby of the doctor's, which he may fairly be allowed to ride about in the class-room for his own health, edification of his pupils. Mr. Moir's acquaintance with the various forms which diseases assume may be estimated by the frequency of his dogmatical assertion. "In all of the cases in which these gentlemen (Drs. Gordon, Armstrong, Hey, &c.) succeeded, the pulse rose from 120 to 140, and the lochial discharge was suppressed at the very commencement of the disease—symptoms which, I hesitate to affirm, *no intelligent practitioner of respectability could find with in a real case of malignant puerperal fever.*" Now one of the two symptoms here denied to malignant puerperal fever, viz. the pulse rising from 120 to 140, was actually present in Mr. Moir's own case. That by his own dogma Mr. Moir can only pretend to be an intelligent and respectable practitioner. Mr. Moir says that the descriptions given by the above-mentioned gentlemen are dictated by the detail of the individual cases. They may receive no compliment, for Mr. Moir's dogma is unequivocally contrary to the case which he has brought forward to support it.

P.S. The following case has just passed under our notice. Moore, 24 years of age, was delivered of her first child on Sunday the 19th of October, after only two hours of labour. The child came away spontaneously. On Sunday she was seized with severe and long-continued rigor, succeeded by great reactive pain and tenderness of the abdomen, especially above the umbilicus, with a pulse of 120. Mr. Bagster saw her and bled her 30 ounces, when tendency to syncope took place. The rigor was deeply buffed. A cathartic was exhibited, which operated on Monday, Mr. Bagster found the pulse 130, and all the inflammatory symptoms again increased. She was again bled nearly to syncope. On Tuesday we saw her with Mr. Bagster. The pulse was 140—the abdomen exquisitely sensible, and a little tumefied—rather hot—the face flushed—constant anxiety and tossing in the bed—the lochia nearly suppressed this day, and on Wednesday forenoon—no afflux of milk to the breasts—delirium during the preceding night, but now calm and collected. The pulse was small, with the above-mentioned rapidity. We expressed t

our opinion that inflammatory action was still going on, and that although there was little chance of recovery, yet depletion was still the only means that afforded that chance. Thirty leeches to the abdomen, and after they came off and bled a few hours, the whole belly nearly was covered with a blister. Three grains of calomel and a quarter of a grain of opium were ordered every four hours. She slept two or three hours on Tuesday night, and had two stools, but of a dark watery kind, in the morning. On Wednesday we found her much relieved in respect to pain and tenderness of the abdomen, but the pulse was 160, and still smaller than ever. We then considered that effusion had taken place. She had no sickness at stomach till Thursday, and she died that night. Mr. B. opened her, and Dr. Cowie was present with us. Full two pints of sero-purulent effusion mixed with flakes of coagulable lymph were found in the abdomen. The peritoneum, in many places on the small intestines, was inflamed and nearly gangrened—both ovaries were in a state of incipient gangrene—and the right one was surrounded with a quantity of thick puruloid matter. The uterus, when slit open, presented marks of inflammation on its internal surface.

Now what will Mr. Moir, or his oracle Dr. Hamilton, call the above disease? Had no dissection taken place, it would have been puerperal fever, and the patient, of course, was killed by depletion:—but dissection having amply justified the means that were used—then, we suppose, it will be denied that it was *real* puerperal fever!

5. *Tar Tapour.** Dr. James Forbes, Deputy Inspector of Military Hospitals, has given the inhalation of tar vapour, as recommended by Sir A. Crichton, a trial in pulmonary affections, the result of which corresponds with our own experience in this remedy. It is, as Dr. Forbes observes, a difficult thing sometimes, to distinguish between chronic affections of the mucous membrane, and tubercular ulceration in the parenchymatous structure of the lungs. In the latter state tar vapour, like all other remedies, fails. But it does more—it aggravates the complaint, as we ourselves have witnessed. In chronic catarrhal complaints, however, it often is of service. We can scarcely agree with our author in his pathology of chronic catarrh. He considers it to be a disease succeeding inflammatory action of the bronchia, “but which is itself unattended with any lesion or inflammation; but, on the contrary, has for its cause a morbid relaxation of the lining membrane of these tubes.” This “morbid relaxation” must surely be some kind of “lesion,” even if it be not of an inflammatory nature. But we are far from

* Dr. Forbes. Med. and Phys. Journal, 284.

believing that this morbid relaxation, and this "preternaturally increased secretion" of the mucous membrane of the lungs is unconnected with chronic inflammation. On the contrary, we think they are, if not one and the same, at least twin brothers, or probably as cause and effect with each other. Dr. Forbes illustrates his pathology by the state of the urethra in gleet; but really we think gleet exhibits an unequivocal example of chronic inflammation in the mucous membrane of the urethra, as a mucous diarrhoea does that of the lining membrane of the intestines. Be this as it may, we shall give the result of our author's experience with tar vapour.

DISEASES.	Total.	Cured.	Improved.	No Effect.	Bad Effect.
Phth. Pulm.	19.	none.	none.	8.	11.
Catar. Chron.	32.	8.	6.	18.	none.

6. *Apparent Pregnancy.** On the 6th June, 1820, Dr. Dewees was requested to see a young lady who had been suddenly taken ill with severe pain in the uterine region, and almost instantly afterward with delirium and mental disturbance. She complained much of her head, palpitation of the heart, and of occasional sense of suffocation. She had frequent lucid intervals from the delirium. She had not menstruated for more than a year—her belly was much swelled—her breasts enlarged—she had morning sickness—and "all the usual signs of pregnancy." Dr. D. on examining the abdomen, felt a circumscribed tumour within it, which, he was very certain, was an enlarged uterus, and he thought he distinctly perceived the motion of a fœtus. As there were febrile symptoms, bleeding and other antiphlogistic measures were ordered, which removed the symptoms before described, and she remained well for a fortnight. At the expiration of this period they again returned, precisely as before, and were again dissipated by the same remedies. The symptoms returned twice more, and twice more they were removed. Mean time, the abdomen continued to enlarge, and the feet and ankles to swell. On careful examination, it was found that there was a fluid in the abdomen, evinced by evident fluctuation. As the young lady's character was beyond reproach, and as there was no perceptible increase of the *uterine* tumour during the last 2 months, Dr. D. began to conclude that he had ascites instead of pregnancy to deal with. He therefore prescribed the volatile tincture of guaiacum, in doses of a tea-spoonful thrice a day in a wine-glass full of milk. After taking this medicine for a few days, it purged her very briskly, and made her discharge very large quantities of urine. Some few drops of laudanum being added, she was enabled to persevere in its use for three weeks, without further inconvenience, at

* Dr Dewees. Philadelphia Journal of the Medical and Physical Sciences, No. VII.

the end of which time no vestige of water was discoverable in the abdomen, "but a serous discharge was observed from the vagina, which was soon followed by a sudden gush of fluid blood, to the amount of about three pints, which soon abated in quantity, and at the end of a week, entirely ceased." She menstruated at regular periods after this, and continued to enjoy good health. We leave our obstetric readers to form their opinions respecting the above case. In a moral point of view it is interesting, as it shows how easily a derangement in the uterine economy may lead to the most cruel and unjust suspicions.

7. *Dropsy of the Kidney.** A medical practitioner, ætat. 25 years, had enjoyed good health till the age of 15, when he suffered an attack of nephritis in the left kidney, from which he gradually, though slowly recovered—always experiencing pain and inflammatory symptoms after much fatigue or exposure to severe cold; but giving way to gentle purgatives and low diet. In the beginning of February, 1821, he had a very severe attack, reaching in a few days to an alarming and dubious height. In addition to hardness, there was a sense of crepitation in the seat of the pain. He was bled freely, and gradually but partially recovered in six weeks. He had repeated attacks the succeeding summer, but they gave way to evacuations and low diet. After getting stouter than usual, he attempted to ride on horseback. The trotting motion gave him great agony. On the 8th September his final attack commenced, and the symptoms were similar in kind, though intenser in degree, than those which he had been accustomed to experience previously. The principal symptom was a fixed, knawing pain extending from the spine to the umbilical region, increased by pressure, and by motion of the trunk. The contact of air gave him great distress. His urine was small in quantity, and once or twice slightly tinged with blood—it never was milky or purulent. The evening previous to death he complained of inability to make water. His bowels were generally costive, and his pains were aggravated by constipation. Relief, though temporary, always followed alvine evacuations. The pulse at the commencement of the attack was 84, and gradually rose to 120. Bleeding always gave relief for a time. A day or two previous to his decease, what he passed was not feculent, but gelatinous matter, and was accompanied with most excruciating pain. A strong idea prevailed in his own mind that the complaint was "spasmodic enteritis," a disease of which we confess we cannot form any clear idea. He never had thirst or rigors—his skin was generally moist and bedewed with perspiration. He never experienced much emaciation, even to the last.

* Dr. Howison.—Ed. Journal, No 73. Dr. James Johnson.—Med.-Chir. Journal, (for July, 1816.)

The body was examined in presence of Drs. Duncan, Alison, and several other medical gentlemen. On opening the abdomen every thing appeared natural at first sight. The liver, on being pulled down, had a blanched appearance, and was very destitute of blood. In tracing the alimentary canal from the stomach downwards, nothing unusual appeared until they came to the sigmoid flexure of the colon, which was considerably thrown forwards from its natural position; and on drawing it out, a large oblong flat tumour, occupying the whole lumbar region and part of the ilium, lying behind the peritoneum, and evidently containing a fluid, presented itself. This tumour extended upwards towards the true ribs, and downwards towards the pelvis—backwards towards the spine; and forwards to near the umbilicus. It measured about a foot in length, and nine inches in breadth, being of a kidney shape. After some labour it was completely insulated from the surrounding parts, and when removed it was found to include the kidney entirely within it. They tied and divided the renal vessels, and the whole being removed, it was laid open by a longitudinal incision, when about three pints of fluid escaped. "The tumour was now found to be formed entirely of the dilated kidney, the cortical and medullary part of which had disappeared, except a few small portions, leaving nothing but a cavernous cyst, consisting of the proper external membrane of the kidney, and its internal membrane much thickened. It was divided into three large irregular cells, freely communicating with the dilated pelvis, into the apex of which the ureter, of its natural size, opened." "The fluid did not possess the smell, taste, or any of the peculiar sensible qualities of urine, but was of a *whitish colour*, like pus diluted with serum." On emptying the kidney there was found a very small calculus, which, on being tried, exactly filled the orifice of the ureter.

We shall now proceed to state the outlines of a case almost exactly resembling the above, in all essential particulars, but still more remarkable in many respects. It is very fully detailed by the editor of this Review, in the 2d volume of the *Monthly Medico-Chirurgical Journal*, for July, 1816. The patient was a poor woman, who came under Dr. Johnson's care, on the 6th May, 1816, being then in the 8th month of pregnancy. She complained of violent pain in the right side of the abdomen, "extending from the umbilicus round to the lumbar vertebræ, and from the floating ribs to the groin." She had much pyrexia, with scanty, high-coloured urine. "On examining the abdomen, it appeared unusually large; but, what was more singular, a distinct *sulcus* was felt, running from the *scrobiculus cordis* to the pubes, on each side of which line the abdominal tumour rounded out, as if there were two impregnated wombs instead of one. Both sides, too, presented nearly the same kind of surface, except that the right felt rather more uniform and elastic than the left. Pressure on every part of the right side gave great pain quite round to the spine."

But an imperfect history of the complaint could be obtained. She had lately been landed from a small ship of war, and stated

that, for two years at least, she had felt more or less pain ; it was only since the period of quickening, however, in her present pregnancy, that it had become so very distressing. During the last three months it had been unremitting. She said there was no swelling of the abdomen before pregnancy ; but that, in the latter months of utero-gestation, on a former occasion, she had felt more than usual pain of the right side. Her bowels had always been regular, but as to her urine, it was different—it was always either scanty and high-coloured, or “ plentiful and white like milk.” When in the latter condition she was comparatively easy—when scanty she was in great pain. The miserable woman attributed her present ailment “ to a practice which, during the suckling of a former child, she had been forced to adopt, in consequence of being at sea with her husband—namely, that of drying all her child’s linen and napkins, by wringing them out hard, and then placing them next her skin (of the abdomen) to dry.”*

Between the 6th and 10th of May, she was bled, took aperients, had blisters on the abdomen, and was taking diuretics. On the 10th, she was in labour, and each parturient paroxysm produced great agony. On the morning of the 11th she was delivered of a living child. She now expressed herself as perfectly free from pain.

“ On examining the patient (says Dr. J.) this day, I was surprised to find, that the right side of the abdomen was little diminished in size ; but, on the contrary, from the shrinking of the left side, a large tumour appeared, projecting at least four inches above the general level of the belly, and seven or eight inches in diameter. It was turgid, and perfectly even all over its surface ; on tapping it gently, a fluctuation was evident, and pressure on it occasioned pain.”

No lochia succeeded delivery, and the original pain soon returned, though not in so violent a degree as before delivery. But fever, colliquative diarrhœa, and constant micturition, harassed the patient. At this time she was seen by Drs. Lara, Gray, Seeds, and several medical gentlemen, and the general opinion prevailed, that the disease was *ovarian dropsy*. The propriety of puncturing the tumour was discussed, but the operation was not deemed advisable.

“ Early (says Dr. Johnson) in the morning of the 20th of May, the nurse was surprised to find that the patient’s bed had been completely drenched, during the preceding night, by a milky fluid which had spread itself over the floor of the room, and descended in considerable quantity, into a chamber underneath.—From what source the fluid issued the nurse could not tell, and the patient had that night slept so well, that the passage was involuntary ; at least she was unconscious of the circumstance. She asserted, however that it was the same kind of milky urine which she used formerly to

* Med. Chir. Journ. vol. ii. p. 4.

make occasionally. It certainly had very little of the urinous smell, and I did not feel disposed to taste it. On pulling down the bed-clothes, the tumour was gone! Manual examination, however, discovered some fulness and fluctuation on that side, though the rise was not very observable above the general level of the abdomen. The pain was also abated, and whitish urine continued to be made in considerable quantities. Notwithstanding this sudden change, the fever, the rapid emaciation, the entire prostration of strength, the sinking countenance, the cold sweats, and colliquative diarrhoea, proclaimed themselves the harbingers of death. Nature, however, struggled four days with these symptoms, during which time a great deal of the same white water was passed involuntarily, as were also the stools. Early in the morning of the 25th of May she expired, the abdomen appearing as flaccid and reduced as though no previous tumour had existed." 5.

It was with the greatest difficulty, and not without bribery, that Dr. Johnson obtained permission to open the body, and that under some galling restrictions. Dr. J. examined the abdomen, eight hours after death, in presence of Dr. Thomas Seeds, and one assistant. The minutes of the dissection we shall give as published by Dr. Johnson in the volume alluded to.

"An incision being made from the sternum to the umbilicus, and from the umbilicus to the spine of each ilium, the triangular flap of integuments was everted over the pubes, when the *cæcum coli* first presented itself, much distended, and apparently with an immense pouch attached to it and the ascending portion of the colon, which pouch filled up the hollow of the ilium, from the liver to near the groin, and from beneath the anterior parietes of the abdomen back to the spine. On looking down into the cavity of the pelvis, when cleared of the small intestines, the bladder was seen moderately distended; the uterus sufficiently contracted for the length of time after parturition; the ovaria and Fallopian tubes on each side, perfectly distinct, natural, and healthy!

"Returning to the colon, on a close examination, and before attempting to remove the parts *ex situ*, I thought I could perceive something like a sulcus between it and the pouch; and, by a careful and delicate dissection, I separated entirely the caput, and ascending portion of the colon from the bag to which they were so intimately attached, as to appear identified with it. The cyst was next to be detached from the concave surface of the liver, from the hollow of the ilium, and from the posterior part of the peritoneal lining of all the right side of the abdomen round as far as the spine. To these various parts it was most firmly agglutinated, but without a single trace of recent inflammation.

"In raising the lower portion of the bag from the hollow of the ilium, a large vessel was exposed, lying in the direction of the psoas muscle, which, at first sight, I took for the external iliac artery; but on clearing it a little from the surrounding cellular substance, I was soon undeceived by coming to the iliac artery with its ac-

companioning vein, and also by observing that the vessel itself was tortuous, and unequal in calibre. In some places it was quite as large as the iliac artery, in others smaller. I first carefully traced it upwards, for a considerable way, and ultimately found it enter the body of the sac :—I next traced it downwards, into the cavity of the pelvis ; under the Fallopian tube ; and into the bladder. Till this moment, the nature of the disease was doubtful ; it was now evident, that the vessel so traced was the ureter, while the immense bag, from which it descended, was the capsule of the kidney distended to a hitherto unexampled magnitude !

“ The ureter, which was very turgid, could be emptied of its contents by pressing the fluid downwards into the bladder, but immediately filled again from the sac. A ligature was passed round it near its entrance into the capsule, and, the tube being divided below that, there gushed out nearly two ounces of the same kind of whitish liquid which passed latterly *per urethram*. We now proceeded to detach the capsule from its various attachments to the liver, small intestines, psoas muscle, &c. &c., but found this so tedious and difficult an operation, that the patience of the female spectators became exhausted, and we were forced to hasten the investigation as much as possible, by examining the interior of the bag *in situ*. I had so far separated the capsule, however, that I could pass my hand in all directions round it, except where it adhered to the concave surface of the liver, and where the emulgent vessels entered the bag. I was particularly careful to examine whether the kidney or any part of it remained unenclosed in the cyst ; but there was no vestige of the kind. On making an incision into the cyst, six or seven inches in length, we found in its cavity about three pints of the same fluid as came from the ureter, which being sponged out, we had an opportunity of viewing the internal surface of the bag. Its parietes varied a great deal in thickness ; from that of a penny piece to that of a shilling. The whole internal surface, however, was highly vascular, and thickly studded with a kind of mammillary, or papillary bodies, varying in size from that of a pin's head, or less, to that of a very small pea. Several thin laminæ, or semicircular septa projected from different parts of the walls of the cyst ; but the largest of them never went half across its diameter, so that the freest communication existed throughout the whole cavity ; in fact, it was but one cyst, for a large sponge went freely to the bottom of it, and cleared it entirely of its contents.

“ The bladder was now punctured at the fundus, and nearly a pint of the same kind of fluid as the cyst and ureter contained, flowed out into the pelvic cavity.

“ It is difficult to calculate the quantity which this cyst may have contained when in its maximum of fulness, immediately after parturition ; but from the flaccid state in which it now appeared ; from the immense flow of water which took place during its subsidence ; and from its great extent and projection externally, before the discharge, we are probably underrating the quantum much,

when we say, that at one time it held five or six quarts of fluid."*

Dr. Johnson was at a loss to give the disease a name, and proposed that of "*hydro-renal distention*," on the same grounds as we use the terms *hydro-thorax*, or *hydro-pericardium*. This disease differs materially from *hydatids* of the kidney, as described by our illustrious pathologist Dr. Baillie. Dr. B. relates the case of a soldier, whose right kidney "was converted into a bag capable of containing at least three pints of fluid, and only a very small part of the kidney, at the lower end, retained its natural structure. The bag was of considerable thickness; was obscurely laminated, and had a *cartilaginous hardness upon its inner surface*. It was full of *hydatids*."†

In Dr. Howison's and Dr. Johnson's cases, especially the latter, the inner membrane was highly vascular, and, without doubt, a secreting surface. "It appears, in fact," says Dr. Johnson, "that, from some cause or other, the pelvis of the kidney had become distended to the size of the inner surface of the cyst, while the glandular substance had either become entirely absorbed, or was expanded between the pelvic and capsular tissues, forming probably the papillary bodies above described, and still retaining the secretory function."

An interesting question remains, to wit, what is the cause of the disease? We imagine that it is obstruction in the ureter. In Dr. Howison's case we see there was a small calculus exactly fitting the orifice of the ureter, and in Dr. Johnson's, although circumstances did not permit him to examine the ureter with sufficient care, yet it is manifest, from the symptoms during life, that the channel from the kidney to the bladder was occasionally obstructed. There is nothing in Morgagni that bears directly on this subject, unless it be the following passage:—"In the *acta eruditorum* an observation is extant made by Groenvett, on a *calculous* girl, whose ureters resembled one of the small intestines, by their capacity being enlarged. And Mauchartus saw the same canals, in an old man afflicted with stranguy, inflated like the *intestinum ilium* from *urine like butter-milk*; at the same time that the *kidneys were very large and unequal*, and had their *pelvis distended to the magnitude of an egg*."‡

But the following case, in the sepulchretum of Bonetus, affords very presumptive proof, at least of the etiology of the renal distention under consideration.

"*Ante sex circiter septimanas accessit me chirurgus, indicans monstrosum foetum pridie natum esse. Cum corpusculum detegerem, vidi ingentem tumorem in abdominis regione, sub hypochondrio sinistro, et facta dissecandi copia, adsumpsit mihi comitem Clariss. Dom. Borrichium, &c. Aperto abdomine cum magna cir-*

* Med.-Chir. Journal, p. 7, 8.

† Morbid Anatomy, p. 279.

‡ De Causis et Sedibus, Ep. 40, Art. 24.

cumspectione, invenimus hepar mole sua naturalem quantitatem non excedere, ut nec ventriculum nec lienem. ***** Nam venis magnis per superficiem sparsis preditus erat tumor, et in ejus parte superiore, aliquid rubicundi instar placentæ uterinæ apparebat. **** Aperto tumore invenimus eum repletum fuisse copia seri ingenti; tandemque deprehendimus renem dextrum in ejusmodi molem excrevisse, et tumorem illum efformasse, qui tamen renuet a figuræ suæ naturali, et a substantia plurimum discrepabat, cum crassissimæ membranæ erat admodum similis, ureter quoque dexter plane erat impervius.”*

Here then we have a case of *congenital* renal distention, with an *impervious* ureter on the same side:—and that these stood in the relation of cause and effect to each other, there can be no reasonable doubt. We think that the same explanation may be extended to those cases that are recorded by the gentlemen above mentioned. We cannot, therefore, agree with Dr. Howison in his pathology of the case detailed by him. He never seems to suspect obstruction of the ureter as the cause of the disease; and, strangely enough, supposes, that the inflammation which “existed in the interior of the kidney arose from the *ulceration* there going on.” On the contrary, we believe that the inflammation arose from the distention caused by the obstructed ureter, and that the ulceration was the *consequence*, not the *cause*, of the inflammation.

From this view of the etiology and pathology, it is obvious, that puncturing the tumours would not have afforded any effectual relief, as it would not have removed the cause of the disease.

8. *Singular Disease of the Nervous System.*† “M. —, aged thirty-six years, of an agreeable figure, cultivated mind, but of great nervous susceptibility, led a gay life prior to his marriage, which took place about six years ago. At that time he experienced some crosses in business, and was afterward severely afflicted, in consequence of a mental derangement which attacked his wife, at the time of her first accouchement. He never left her during the whole of the disease, but accompanied her in a journey, and was thus witness, for nearly a year, of the incoherencies and convulsive affections of a being for whom he had the most tender attachment. The complete cure of Madame — put an end to the moral torture which her husband experienced; but, instead of giving way to joy, which such a fortunate event might naturally occasion, he remained dull and silent, and gradually showed every symptom of real melancholy—believing himself inevitably ruined, and feeling persuaded that he was the object of animadversion by the laws, of the searches of the police, and of public raillery. His mind was perfectly correct upon every

* De Hypochondriorum Tumore, Lib. III. Sect. XVII. Obs. XXII.

† M. Majendie. Journal de Physiologie, April, 1822.

other subject. He was recommended to travel, to take the waters, and to undergo different modes of treatment, but without success.

" Things were in this condition, when, in the month of September last, he was seized with a degree of stiffness in the right leg and thigh, to such an extent as to cause him to limp. A few days afterward, a similar stiffness attacked the opposite thigh and leg ; and he subsequently lost all power of volition over his movements. The limbs were, however, far from being paralyzed, but they were, in some measure, isolated for whole hours : he was then obliged to execute the most irregular movements, to assume the most whimsical attitudes, and to make the most extraordinary contortions. It is impossible for language to paint the multiplicity and the strangeness of his movements and positions. If he had lived in times of ignorance, he would, doubtless, have passed for one possessed of a devil ; for his contortions were so far removed from the movements proper to man, that they might easily have been regarded as diabolic. It was worthy of remark, that, in the midst of these contortions into which his thin, supple body was thrown, sometimes forwards, sometimes behind, or to one side, like certain vaulters, he never lost his equilibrium, and that, in the great number of attitudes and singular movements which he executed during several months, he never happened to fall. In certain cases, his movements re-entered into the class of ordinary movements ; thus, without his will participating in the least in the world, he would get up and walk rapidly, until he met some solid body which obstructed his passage ; sometimes he started backwards with the same promptitude, and was only stopped by a similar cause. He was often observed to resume the use of certain movements, without being able in any manner to direct the others : thus, his arms and hands frequently obeyed his will ; and, more frequently still, the muscles of the face and of speech. It was sometimes possible for him to recoil, when his progress in advance was interdicted, and he then made use of this retrograde movement, for the purpose of directing himself towards the objects which he was anxious to reach.

" Finally : these movements, which might be called *automatical*, never continued a whole day : he had tolerably long, quiet intervals between the paroxysms, and his nights were always tranquil.

" Although the contractions were very violent, so as to produce copious perspiration, when they had ceased, he experienced no feeling of fatigue, proportionate to the intenseness of the efforts which he had made—as if the intellectual exertion which we make use of, in order to excite our movements, is that which becomes the most fatigued in us.

" Reckoning from the day on which the movements showed themselves, there was a slight melioration in his moral condition.

" The physicians of the province in which he dwelt made use of several means against this singular disease. Among others, baths, leeches, antispasmodics, &c. were useless. They then decided upon sending him to Paris, where he arrived in the month of December last, and put himself under my care.

"I employed the first days in studying his condition, which I could not class under any known disease. It was not a catalepsy, for the movements were frequently rapid and multiplied; there were no convulsions, for the contractions had a certain *ensemble*, and a sort of regularity in the disorder of the movements; and it was not the dance of St. Guy, for in that there is an agitation, a friskiness, and a versatility in the contractions, which were not perceptible in this patient.*

"What was to be done in such a case? and how much the emptiness of medical theories is felt upon such occasions!

"Many remedies had been already employed, and it was necessary to try others.

"Having no particular motive, and seeing, moreover, no inconvenience from it, I decided upon administering the sulphate of quinine, which was given in the dose of two grains a-day, in a small potion.

"From the second day an appearance of amendment was perceptible; on the third it was evident, and, on the sixth, all the *automatrical* phenomena had disappeared; and M. —, to his great satisfaction, regained the supreme direction of his locomotive system.

"From this moment (about four months from the present time) he has had several slight relapses, always produced by strong moral emotions, such as the death of his sister and father-in-law. At the first time, I considered it proper to have recourse to the curative means which I had employed with so much success, and I obtained from it a speedy cessation of the symptoms.

"In the last month, there have been some involuntary movements, which continued for some hours, and disappeared of themselves.

"A final remark, which I should not forget, is, that the influence of volition over the movements was gradually restored: for example, during several weeks he was unable to run, and, consequently, felt obliged to be contented with walking, and even with this to a certain limit, both as regarded the extent of his steps and their speed."

9. *Stethoscope*.† M. Kergaradec has lately published a small memoir upon the Application of Auscultation to the Study of Pregnancy. By means of the *stethoscope* or *pectoriloque* of Laennec, he is of opinion, that the pulsations of the heart of the *foetus* may be distinguished from those of the arteries of the mother; and that, by an attention to the different sounds communicated to the ear, we may determine, in doubtful cases, whether the *foetus* in utero is alive or dead. MM. Kergaradec and Laennec are both of opinion, that the

* Both the phenomena and the treatment convince us, that the disease was nothing else than Chorea, of which there are many instances on record, where the movements were quite as singular as in the present case.
—Ed.

† M. Kergaradec. *Majendie's Journal*.

stethoscope and the immediate application of the ear, are attended with the same advantages ; but M. Fodera considers, that although, for the purposes of delicacy, the *stethoscope* may be sometimes preferred, yet that we may frequently be able to detect diseases by the immediate application of the ear, which we are not able to do with the *stethoscope* ; and he consequently gives the preference to auscultation performed in that manner, in all cases where the *stethoscope* may be considered necessary.

10. *Uterine Hæmorrhage*.* Although it be a general truth, that uterine contraction secures from uterine hæmorrhage—and that the uterus is contracted when it feels small, round, and firm ; yet the attentive practitioner is occasionally struck by the disproportion that exists between the want of contraction and the degree of hæmorrhage—a bulky uterus being often free from discharge—and there being, sometimes, a profuse flow when the uterus is small and contracted.

“ Nay, further, I have witnessed a profuse hæmorrhage, though the uterus had contracted in the degree which commonly indicates security ; and I have ventured to do what is seldom justifiable, separate the placenta before the uterus had contracted, without more hæmorrhage than after a common labour. What is this circumstance which has so great an influence that its presence can cause a moderately contracted uterus to bleed profusely, and its absence can cause an uncontracted uterus to bleed scarcely at all ?”

Experience has taught our author that, there are two circumstances in which a hæmorrhage may prove alarming, though the uterus be contracted.

1st. The effects of uterine hæmorrhage are comparative in different constitutions. If some people, who are prone to syncope, lose rather more blood than usual, it will affect the constitution as much as a profuse hæmorrhage will others—this trifling excess not being indicated by any thing unusual in the size of the uterus.

2dly. After delivery, in general, uterine contraction prevents hæmorrhage, by closing the mouths of the vessels so as to resist the ordinary momentum of the circulation. But if this momentum be extraordinarily great, it is reasonable to suppose, that it might overcome the common occlusion of the vessels even in a contracted uterus.

The two positions above stated, are elucidated by cases. The following is illustrative of the first position. Dr. G. delivered a lady of her first child, the labour being short and easy. About ten minutes, *post partum*, the uterus felt round, firm, and of the usual size. In this state of things, she suddenly exclaimed that she was going to

* An Account of some Circumstances in which a Uterine Hæmorrhage may occur sufficient to produce alarming Symptoms, though the Uterus feels contracted in the ordinary Degree. By ROBERT GOOCH, M. D.—*Med.-Chir. Transactions*, Vol. XII. Part 1.

faint, (being accustomed to it,) and, in a minute afterward, she did faint. For a long time, she continued alternately reviving and sinking—"a state which the most experienced cannot watch without painful anxiety." Dr. G. does not give the sequel, but we conclude, of course, that recovery took place.

In some constitutions the syncope is the accidental effect of an exhausting labour, and is accompanied by that powerless and agitated state of the vital functions, termed "nervous irritation"—cases in which the best cordial is an opiate. We shall insert the following case in the words of our author.

"I was attending a lady, thirty-six years old, in her first labour. Of her mother and three daughters, all but one, have, in their first labours, been delivered with the forceps. She had a severe and protracted labour, and no longer feeling justified in postponing the delivery, I applied the forceps. The external discharge was not greater than usual; the uterus, after the removal of the placenta, felt rather, but not very, large. She had not been tranquil since the extraction of the child, but about twenty minutes afterward her appearance alarmed me greatly. Her heart beat with indescribable rapidity, her pulse was countless, she breathed so quick and short that, to use her own expression, if it became quicker and shorter she should not breathe at all, and she felt as if she was dying.

"I had two duties to perform; one, to take care that the symptoms were not kept up, nor caused by internal hæmorrhage; the other, to administer what I thought most likely to tranquillize these alarming symptoms. I passed my hand into the uterus; it contained a good deal, I guess a pound and a half, of coagulated blood; I scooped it out with the hollow of my hand. There was no occasion to irritate the uterus to contract; the instant it was empty it shut like a spring, and when I put my hand on the outside I found it not more than half its previous size, but the symptoms continued as alarming as ever. I now gave her a desert-spoonful of Hoffman's æther, and fifty drops of laudanum, and then sent off for the family physician. When he arrived the symptoms had abated so much, as to relieve me from my anxiety; the pulse was slower, the breathing more tranquil, and she felt disposed to sleep. She continued to sleep nearly two hours while we remained in the house, then awoke for a few minutes, slept well through the night, and awoke the next morning without any vestige of her symptoms, sensible to herself; but her pulse continued frequent for many days." 156.

In illustration of the 2d position, (extraordinary momentum,) the following case is related. On the 10th of April, 1816, Dr. Gooch delivered Mrs. S. of her second child. For many hours before the accession of labour, she was flushed, and had a quick pulse. This state was diminished, but not removed, by proper means. It continued for some time *post partum*. After the removal of the placenta, the uterus felt, in the hypogastrium, contracted in the ordinary degree; yet, in twenty minutes afterward, there came on one of the

most frightful hæmorrhages he ever witnessed. By the introduction of the hand, and the application of cold, it was speedily arrested.

More than a year afterward, the same lady came to town to be confined, and Dr. G. did not see her till she was in labour. On entering the chamber, he was struck with the same state of the circulation that had preceded her former accouchement—"she was sitting in her easy chair, with a red face and a throbbing pulse." In a few minutes the pains increased, and it was necessary to put her to bed. The child was soon expelled, but gradually. The uterus contracted in the usual degree, yet, in a few minutes afterward, the blood burst out with prodigious impetuosity, and gave rise to a fearful scene. The introduction of the hand and the application of cold speedily arrested the hæmorrhage. For many days afterward, she could not sit up without faintness.

Our author wisely considered, that if she again became pregnant, it would be prudent to take such measures, before her accouchement, as might cause her to fall in labour with a cool skin and a quiet pulse. In twelve months afterward, she informed our author, that she was five months gone with child. He advised her to avoid fermented liquors—to take meat only thrice a week—a purgative of salts and senna twice a week—a scruple of nitre thrice a day. This plan was to be begun two months before confinement. Our author saw her four days before her accouchement, and was gratified to find her with a cool skin and quiet pulse. Yet the former inflammatory state recurred, the same as before, for forty-eight hours before labour. The child was gradually expelled—the uterus contracted—but the hæmorrhage came on in a few minutes. It was, however, trifling, compared with the former attacks, and was easily suppressed by wetted napkins to the belly. In process of time, she again became pregnant, and to the precautionary means above described, she was twice moderately blooded, a little before confinement. Her labour, this time, was unaccompanied by flushing or quickened circulation, and no uterine hæmorrhage ensued.

Our experienced and intelligent author has met with other instances, similar in kind, though less striking in detail. He has seen a strong cordial, given unnecessarily towards the conclusion of a labour, excite inordinate action in the heart and arteries, the consequence of which was a flooding after the separation of the placenta, though the uterus was contracted in the ordinary degree. On the other hand, he has ventured to separate the placenta, while the uterus remained largely dilated; but the circulation being languid, no more blood was lost than after an ordinary labour.

"How often a disturbance of circulation plays an important part in uterine hæmorrhage it is difficult for an individual to know; but I suspect sufficiently often to deserve the especial attention of practitioners. I advise them when they meet with patients subject to hæmorrhage after delivery, to notice the state of the circulation before labour, and, if disturbed, to employ means for tranquillizing it before labour comes on. I advise them, during labour, to use cor-

dials cautiously, lest the placenta should separate during an excited state of circulation. I advise them after delivery, though the uterus may feel contracted, to be slow to leave their patient, if the circulation be greatly disturbed." 161.

Dr. Gooch alludes to the important subject of a contracted uterus becoming relaxed, and thus giving rise to hæmorrhage. The states of contraction and relaxation may, and do alternate, with corresponding cessations and recurrences of hæmorrhage. Thus, the first time he attended the lady, whose case has just been related, the bleeding returned again and again, although the abdomen had been covered with pounded ice—the uterus, at one time firm and distinct, becoming, at another, so soft as no longer to be felt.

"Finding the ice so inefficient I swept it off, and taking an ewer of cold water, I let its contents fall from a height of several feet upon the belly; the effect was instantaneous; the uterus, which the moment before had been so soft and indistinct as not to be felt within the abdomen, became small and hard, the bleeding stopped, and the faintness ceased; a striking proof of the important principle, that cold applied with a shock, is a more powerful means of producing contraction of the uterus, than a greater degree of cold without the shock." 163.

After the second labour, and at the beginning of the hæmorrhage, Dr. G. found the placenta separated and lying in the vagina. He removed it—the hæmorrhage abated, but returned in a few minutes. He took several handkerchiefs soaked in vinegar, and passed them, one after the other, into the vagina, so as completely to plug it. This prevented all external hæmorrhage, and some uterine pains came on. But presently the pains ceased, the uterus softened and enlarged, and she turned ghastly pale. It was now evident, that an external, had been merely converted into an internal, hæmorrhage. He withdrew the handkerchiefs, and applied his hands in the manner described in the following extract, with perfect success.

"My belief now is, that when hæmorrhage occurs after the removal of the placenta, the quickest way to stop it, is to introduce the left hand closed within the uterus, apply the right-hand open to the outside of the abdomen, and then between the two to compress the part where the placenta was attached, and from which chiefly the blood is flowing. When the hand is introduced merely as a stimulant, there is an interval of time between its arrival within the uterus and the secure contraction of this organ, during which much blood is often lost. By directing the hand to the very vessels from which it issues, and compressing them as I have described, this quantity is saved. If I may judge by my feeling, the blood stops, in a great degree, even before the uterus contracts; the hand acts first as a tourniquet, then as a stimulant. It is true we cannot tell with certainty where the placenta was attached, and consequently where the pressure should be applied; but as it is generally attached to or near the fundus, if the pressure be directed there, it will generally be right.

Besides, after the child is born, it is often several minutes before the placenta separates and descends; if, during this interval, we pass up the finger along the chord, and observe at its entrance into the uterus whether it turn towards the front, the back, the right or left side, or straight up to the fundus, we shall form a tolerably exact idea of the spot to which the placenta has been attached in this individual case." 165.

Dr. Good does not consider it necessary during syncope, in such cases, to delay introducing the hand until the patient revives. On the contrary, he introduces the hand, and endeavours to stop the blood, and induce contraction, before giving cordials or stimulants internally.

We have now given our readers a full and complete account of this valuable and truly practical paper. It is a great pity that Dr. Gooch does not write *more*—for very few can write *better*.

11. *Iritis*.* Dr. Smith, of the army Ophthalmic Depôt at Chatham, has made a valuable report of cases to our respected cotemporary of the North. Twelve instances of iritis are narrated, accompanied by the usual symptoms of increased vascularity of the iris and external tunics of the eye-ball, pain, intolerance of light, lachrymation, immobility, contraction, or irregularity of the pupil, dimness of vision, and sense of over-distention of the eye-ball. The cause was, in almost all the cases; attributed to the action of cold. Some of the men had had syphilis, and some not. The same might be said of mercury. These results, as far as they go, in Dr. Smith's opinion, "have little tendency to support the supposed noxious effects of syphilis or mercury on the eyes." Dr. Smith, from much experience, is inclined to view the syphilitic and mercurial actions as predisposing, not exciting causes of iritic inflammation, partly by their deranging the healthy functions of the system, and partly from their requiring confinement, whereby the body is rendered more susceptible to the action of cold, which appears to be the general exciting cause of idiopathic iritis.

The treatment was regulated by the severity of the symptoms. When the pain was violent, or moderate but of long standing, venesection to syncope was ordered—but when the pain was pretty moderate, and the other symptoms did not run high, local bloodletting was considered sufficient. After the bleeding, a purgative, generally containing some tartrate of antimony, was exhibited. No benefit was derived from full vomiting.

"As soon as the bowels were freely evacuated, the next object was to affect the mouth with mercury. This was done by giving calomel in conjunction with opium, during both the day and night.

in doses of two grains of the former, and a quarter of a grain of the latter, every hour, or perhaps every two hours, till the gums felt tender, or an increased flow of saliva was manifested. About this period of the cure the patients generally stated that they experienced a very considerable abatement of the pain, and sense of fulness with which they had been hitherto annoyed. The vision immediately became more clear, and the irregularity of the pupil and effused lymph began to subside, and the iris to assume its natural colour. A continuation of the mercury for ten days or a fortnight, so as gently to keep the mouth affected, removed the disease in all except one."

Our author observes that iritis may be cured in the ordinary way, by antiphlogistics, but neither so safely nor so speedily as on the mercurial plan above described. Added to which, the chance of losing or impairing the visual orb is much more by the one treatment than by the other.

We have often been surprised that the treatment of iritis alone, which no one will deny to be an acute inflammation, did not alter the language of physicians and physiologists respecting the *stimulant* powers of mercury. It is considered a stimulus, a general or universal stimulus, and little else. Now wine or brandy is also a general stimulus : but would either of them cure iritis ? The term (as a single one) most applicable to mercury is that of a *universal secernant* ; and we have long thought that the increase of absorption consequent on the operation of mercury, results from the previous evacuation or depletion, which is well known, as in the instance of blood-letting, to set the absorbents actively at work in all parts of the system.

12. *Pectoral Disease—Hypochondrias—Suicide.** M. P. a celebrated gun-smith of Paris, 42 years of age, had enjoyed good health till the age of 23, when he experienced a pulmonic attack which left a chronic cough and expectoration of long standing. At this time he was attended by a friendly physician, who used to enter into long dissertations on the complaint and economy of the chest, &c. which greatly raised the patient's opinion of the doctor's skill. The latter promised a complete cure in six years ; but at the end of three years put an end to his own existence without fulfilling his promise to the patient. The treatment during this first epoch consisted in general and local bleeding, and a caustic issue in the right leg to carry off the superabundance of humours which flowed to the lungs, and was discharged by coughing. In great despair at the death of his favourite physician, he determined to manage his health himself, but formed a project of acquiring a large fortune, in

* *Retrecissement du coté droit de la Poitrine—Hypochondrie et Suicide.* M. Beulae, M. D. *Journal Complémentaire*, No. 50.

the mean while, by perfecting all branches of his business. Before his wishes were quite accomplished he became so seriously ill, by intense application and great irregularity, that his wife insisted on his having medical assistance. At this epoch he exhibited symptoms of hydrothorax, as irregular chills, difficulty of breathing, sense of weight in the right side of the chest, and bulging out of the ribs of that side, to which was added, slow hectic fever. The celebrated Bayle now attended him. One night he suddenly discharged a large quantity of sero-purulent matter by coughing, after which the enlargement of the side became reduced, and, finally, that side of the thorax contracted. Cough and purulent expectoration continued. Being now in a state of demi-convalescence, M. P. went into the country, by the advice of his physicians, where he began to meditate profoundly on the "miseries of human life," and, for the first time, evinced an aversion to some of his nearest relations, especially his wife. The chimerical fear which he entertained of assassination induced him to keep always loaded pistols about his bed—and from this time may be dated his intellectual aberration.* In this state he continued, sometimes better and sometimes worse, for some years, viz. up to 1819. The treatment, during this epoch, consisted in expectorant ptisans, "cinchona to check the hectic fever"—and a cautery to the right thigh. In 1819 there were some consultations between Drs. Martin, Cayol, Recamier, Louis-Villermay, M. Roux, and M. Laennec.† The right side of the thorax was found to be flattened and contracted—the shoulder depressed—the muscles wasted—the vertebral column slightly bent. When the stethoscope was applied, the breathing could be very faintly heard on this side, but very distinctly on the other. Pectoriloquism was evident between the clavicle and the edge of the trapezius muscle on this side, and intonation of the voice in the armpit. Two cauteries were applied to the vertebral column, and the sores kept open. During this period the patient manifestly began to suspect the fidelity of his wife—to look upon his affairs as in a very deranged condition; and, in short, to exhibit the most unequivocal phenomena of mental alienation. In this condition he chose a lodging in the *Rue d'Enfer*—an ominous name for his abode—and determined not to go out of doors on any occasion. In a consultation of the forementioned physicians, it was determined to suppress the cauteries, and in their stead to keep open a blister. This measure, our author thinks, was the cause of the fatal catastrophe which followed—in which opinion we decidedly disagree with him. The patient had long entertained a notion that a person, in whom

* We do not quite agree with M. Beulac on this point. We think his mind was wavering before this period, and from the moment that he placed pistols in his bed-chamber to guard against assassination, his insanity was no longer a matter of doubt.

† This appears to be the case alluded to in the second volume of Laennec's work, page 371. *Rer.*

a blister failed to act, had but a short time to live. The blister did not act, and the patient concluded that his only method was now to commit suicide, to prevent the misery of a lingering death. He therefore put himself to death with one of the loaded pistols which hung at his bed-head!

Before making any reflections, we shall present the *post-mortem* appearances. The head was not opened—a most culpable omission under such circumstances. The right lung was nearly hepaticized, and in its upper portion was found an excavation, capable of containing a very large nut, and communicating with several of the bronchia. There were false membranes in several places on this side glueing the lung to the diaphragm and ribs. The left lung was large and very sound, as were the heart and also the abdominal organs.

We may remark, in the first place, that nothing could be so highly improper as to allow a man who had evinced unquestionable symptoms of mental derangement for some years, or indeed, for any time, to keep loaded pistols at his side, day and night. In the second place, it appears that the “*pectoriloquie*” and the “*retrecissement du côté*” absorbed the whole attention of the physicians, and that nothing was done to remove the cerebral malady. In the third place, the pulmonic affection was not of such a nature as to threaten life for some years to come; and therefore had the mental disease been removed, there was a prospect of the patient’s enjoying life and the society of his friends for an indefinite period. The case affords a memorable lesson to the medical practitioner, never to permit a patient (as far as he can prevent it) who has aberration of intellect, to be master of his own actions for a single day.

13. *Compound Fractures.** The general practitioners in the country are treading close on the heels of the exclusive surgeons in town. There is a far greater spread now than formerly of medical and surgical information among all ranks of the profession, and they are become bolder and more successful in their practice. The pages of our own Journal have contained ample proofs of this—and the Medico-Chirurgical Transactions owe no small proportion of their contents to this valuable class of medical society.

Mr. Dunn is favourably known to the profession by a paper in a late volume of these transactions, containing a case of the removal of several of the tarsal and a part of the metatarsal bones followed by complete success. The present communication records two cases of compound fracture, in which the limbs have been saved by a similar removal of large portions from the middle of the cylindrical bones—and one of simple fracture, in which a projecting portion of

* Observations on Compound Fractures. By John Dunn, Esq. Surgeon, Scarborough. Med. Chir Transactions, Vol. xii

bone was sawn off with equal success. Of these cases we shall present our readers with a succinct analysis.

On the 17th of March, 1821, John Harper, a lad of 14 years of age, was thrown from his horse, and while one foot hung in the stirrup, the horse went off at full gallop. The consequence was a dreadful fracture of the right leg—"the broken ends of bone projecting from a wound of immense extent, and a portion of the tibia detached, which he (Mr. Hagyard) removed." Mr. Travis and Mr. Dunn arrived by candle-light—

"And found the poor lad in a small and wretched hovel, extended on a couch, with a large wound, and destruction of the skin of the middle of the leg; the upper portion of the tibia projecting like a stick, unconnected with any of the soft parts, and deprived even of its periosteum, to the extent of between two and three inches, and the lower portion denuded of all covering to the length of three-fourths of an inch. The fibula was also fractured near the knee, and in the centre of the leg, so that it was divided into three pieces. It was, however, so connected with the surrounding parts, that the spiculæ of bone could only be discovered by the insertion of the finger into the wound. The teguments on the posterior part of the limb, although much bruised, were not deadened; and the circulation could be distinctly traced along the course of the posterior tibial artery. A considerable hæmorrhage took place at the moment of the accident, but it was now suppressed. The wound was six inches or more in length, and as many in breadth; but the boy was comparatively tranquil. On consultation, the grand question was, whether to amputate the whole member; to put it up in splints as it was; or to saw off the denuded rough extremities of the tibia, and treat it as an ordinary compound fracture. In this dilemma, which required immediate decision, we determined upon the last expedient. The tourniquet was therefore applied, the broken ends of the bone raised from the wound, and whilst the limb was held steady by one, and a bone knife kept under the exposed portion of the tibia by another of my friends, I successfully amputated the two extremities of the fracture, including about *three* inches of the whole cylinder of the tibia. We were unable to reach the fibula with any instrument, so that the two portions of the tibia could not be brought within an inch and a half or two inches of each other, without projecting the spiculæ of the former into the surrounding muscles." 169.

Stitches were passed through the edges of the wound and their sides drawn as near as convenient, when strips of adhesive plaster were applied round the limb, with an eighteen-tailed bandage and splints. The patient went on favourably—the wound became so covered with granulations that the bones were no longer discoverable. On the 1st of May the report was—"the sinuses diminished; the space between the bones filled up with solid matter; by compressing it on each side I could trace a continued line of bone." By the 26th of October the boy was walking about the streets.

While we give Mr. Dunn every credit for his judgment and prompt resolution, in the above case, and while we most fully approve of the practice which he adopted, we venture to differ from him on certain physiological points—and this difference, we have stated in our review of Sir Astley Cooper's work on Dislocations; we need not, therefore, repeat it here.—*See page 633.*

The second case related by Mr. Dunn, is that of a lad, sixteen years of age, who was stricken, on the middle of his leg, by a great plank of wood. Both the tibia and fibula were fractured. The ends of the former protruded from a very long wound, above half the length of his leg, having the appearance of a clean cut. The ends of the bones were very ragged—the most forcible extension could not place them in coaptation. It was, therefore, determined to saw off their extremities with the common amputating saw—No hæmorrhage of consequence followed—the wound was cleaned, and the bones put in apposition. About half an inch of the exterior part of the tibia was left denuded of its periosteum, but the rest of its circumference was connected with living parts. The leg was properly dressed, and the boy was judiciously treated. In four or five months the patient could walk without crutches.

The third case was the removal of a projecting edge of the tibia, after a badly united former fracture. These cases are very creditable, as we before observed, to Mr. Dunn, and to provincial surgery in general.

14. *Scrofula*.* Mr. Fosbroke, whose zeal and active spirit of observation bid fair to promote the advancement of his profession, has recorded a curious example of the extent to which a local disease, depending upon a scrofulous diathesis, may go. The patient was a young man, 20 years of age, who had been attacked for years previously, with an inflammatory swelling of the left knee, which extended down to the foot. The swelling of the knee suppurated, and, by all accounts, discharged a great quantity of pus. The thigh then became suddenly swollen—the hip-joint became obviously affected—large and deep abscesses formed at the posterior part of the thigh, at the superior spinous processes of the ilium, on the sacrum and lumbar vertebræ, about the shoulder joint, under the true ribs; in each lumbar region, &c. sometimes discharging thick pus, sometimes thin matter, in great quantities. The right extremity was gradually enlarging like the left. In the latter, large portions of the tibia and femur had exfoliated, and abscesses had formed where the process of ulceration had afforded a passage for the removal of cylindrical portions of bone. Some portions were necrotic, and passed away covered with a bloody sanies. The cellular membrane and cutis were thickened, “and effusions of the cuticle, in large brown crusts, covered the surface of these limbs, now of extraordinary

* Mr. Fosbroke. Ed. Journal, No. 73.

magnitude." "These scaly crusts, with the general dense enlargement of the integuments, gave some resemblance to the horny hide of a rhinoceros. All contour was destroyed, and the size and deformity of the left leg exceeded that which is seen in elephantiasis. At the time Mr. Fosbroke saw the patient, all acute symptoms had subsided, and notwithstanding the dreadful condition he was in, the animal functions contended with great vigour against the progress of diseased action. "It is singular," says Mr. Fosbroke, "that the most vital parts exposed had so completely escaped, viz. the muscles, arteries, lymphatics, and the sheath of the medulla spinalis." On this account, probably, there was less waste of life than in common psoas abscess.

"My inquiries," says Mr. Fosbroke, "enable me to say, that scrofulous affections are more abundant on the southern coast than in more insular (we imagine this is a misprint for *inland*) situations. This fact, which is conformable to the opinions of Sir Astley Cooper, in his invaluable lectures, argues for the reverse of local representations."

15. *Suicide, curious tendency to.** A woman, 35 years of age, is now under the care of M. Falret for symptoms of phthisis. When 19 years old, the death of an uncle, by his own hands, made a deep impression on her mind. She heard that insanity was hereditary; and the idea pursued her that she should one day fall into this wretched condition. She confessed her apprehensions only to the priest, who endeavoured to dissipate the mournful impression; and in this state, she continued for two years, when the death of her reputed father, also, by suicide, rivetted the conviction on her mind that her own doom was sealed. She was convinced that *her blood was corrupted*, and this idea appeared to her confirmed by her next menstrual secretion being less copious, and less coloured than usual. Tortured by this notion, she took the resolution of drowning herself. After leaving a letter in her chamber, apprising her friends of the manner of her meditated death, she plunged into the river, but being immediately drawn forth from the water, she was restored to life. The night following this attempt, she was harassed with pain in the head; and, after a short sleep, she awoke incapable of recognising any of the friends about her. She was evidently delirious, but made no allusion to her former melancholy apprehension. Although formerly religious and well-behaved, she now uttered nothing but obscenities. This delirious excitement continued three days, and was succeeded by melancholy and inclination to suicide. Headach again came on, with nausea and bilious vomitings, which, however, soon subsided. She emaciated considerably after this, and menstruation became irregular, being about once in three weeks, and scanty.

* M. Falret. *Revue Medicale*, December, 1821.

She was the picture of despair, and could not look at herself in a glass without terror. Once more she invoked the aid of religion, which afforded her some consolation, but was insufficient to dissipate her sufferings entirely. Meanwhile, her mother revealed to her the secret, that her real father was yet alive, and after some time passed in skepticism on this point, she consented to an interview with her father. The physical resemblance was so striking, that all doubt was instantly removed from her mind. From that moment, all idea of suicide vanished—her spirits and health became progressively re-established—and the menses only continued irregular for a few months. Fourteen years have now elapsed since the attempt at self-destruction. She is the mother of three children, and, during her married state, has been reduced to the greatest penury and distress. But she has never, since the period alluded to, entertained the remotest idea of suicide—on the contrary, she has proved an exemplary wife and affectionate parent, having the full possession of her intellectual faculties.

The above case offers a good illustration of the power of moral emotions in producing physical lesions. The impression occasioned by her uncle's unhallowed death, evidently deranged her intellectual faculties. A melancholy, or *chronic* delirium preceded the attempt at suicide, and a maniacal, or *acute* delirium followed it. The effect of moral emotions was not less conspicuous in the cure, than in the production of the hallucination and tendency to suicide.

One other reflection we shall indulge in here—the impolicy of ever putting in rigid execution against the corpse, the inhuman laws against the crime. The only possible excuse for offering indignities to the lifeless clay, is the hope of deterring the living from following the example of the dead. But the revolting sensations occasioned by this cruel act, and the publicity and record of the act itself, are well calculated to produce, in the minds of relatives and even of strangers, that condition which leads to the catastrophe so much dreaded.

16. *Inflammation and Retroversion of the Uterus.** Dr. Robertson, of Glasgow, has detailed two or three interesting cases, in the Edinburgh Journal, where pain and intumescence, or inflammation of the uterus, in the unimpregnated female, appeared to produce a kind of retroversion of the organ, accompanied by a state of great suffering. The first case, however, is rather equivocal, and some people may still look upon it, as Dr. Robertson did at first, himself, to be in some way connected with utero-gestation, though evident discharge of a blighted fœtus could not be perceived. The second case is less exceptionable, and we shall give some account of it.

Dr. R. was called to a young girl, 19 years of age, and found her resting on her knees and elbows, weeping from pain. Ten weeks previously, she had been delivered of a still-born child, and had had

a good recovery. Two days before the present visit, her calls to make water became very frequent, without any known cause. (Ever since her confinement, however, she acknowledged that she had made water more frequently than formerly.) She now felt a dull uneasy weight in the loins, with slight pain in both groins. Her pulse was quick, feeble, even tremulous—pain in the umbilical and hypogastric regions, apparently agonizing—urine and fæces lately evacuated—no menstruation since last confinement. Sixty drops of laudanum were ordered, followed by a dose of castor oil and calomel. This was productive of temporary relief and sleep; but next morning she was as bad as before—principally complaining of her pubes, back, and groins—of frequent micturition and inclination to stool, the latter accompanied by much bearing-down pains. On examining, *per vaginam*, Dr. R. found the uterus very low down, and enlarged, as nearly as he could guess, to about the bulk of one's fist, "the fundus being directed backwards into the hollow of the sacrum, while the mouth, which was tumid and much indurated, was felt facing the lower edge of the symphysis pubis. The whole body of the womb was so tender, that she screamed when the most trifling pressure was made on it. Her pulse was quick, small, and more feeble than hard. During the night, she had been attacked with frequent vomiting. Venesection *ad zviij.* which produced fainting. Fomentations and opium were then used to allay the pain. Pills, composed of calomel and opium, were next administered, with the view of reducing the bulk of the uterus. Leeches were also applied to the vagina and labia pudendi. On the 4th day from the commencement of the pills, the gums became tender. The uterus now felt somewhat flaccid—the tenesmus and dysury, in two days more, had almost subsided. The pills were continued at proper intervals so as to keep up a trifling irritation on the mouth, and on the 16th day from the time our author first saw her, she was well—the uterus feeling light, buoyant, and of the natural size. The symptoms and mode of treatment, in this case, were nearly the same as in the other, which we shall not notice.

That the phenomena, in these instances, were to be attributed to a congested, or sub-acutely inflamed state of the uterus, we can scarcely doubt; and that this state of turgescence produced the malposition, or retroversion, as it is called, we think is not very improbable. These inflammatory affections of the uterus are more common than is generally imagined, and the antiphlogistic treatment, especially by local blood-letting, rest, horizontal position, semicupia, and abstinence, is not sufficiently attended to. A farrago of remedies, supposed to have some specific influence on the uterine system, are too often substituted by the routinist for this rational treatment.

17. "*Test for Arsenic.*" Dr. Cooper, president of Columbia

Dr. Cooper. Silliman's Journal.

College, finds a solution of chromate of potash to be one of the best tests of arsenic. One drop is turned green by the fourth of a grain of arsenic, by two or three drops of Fowler's mineral solution, or any other arsenite of potash. The arsenious acid takes oxygen from the chromate, which is converted into green oxide. To exhibit the effect, take, he says, five watch glasses; put on one, two, or three drops of a (watery) solution of white arsenic; on the second, as much arsenic of potash; on the third, one-fourth of a grain of white arsenic in the substance; on the fourth, two or three drops of solution of corrosive sublimate, either in water or alcohol; in the fifth, two or three drops of a solution of copper. Add to each three or four drops of solution of chromate of potash. In half an hour, a bright, clear grass-green colour will appear in numbers 1, 2, 3, unchangeable by ammonia; number 4 will instantly exhibit an orange precipitate; number 5, a green, which a drop of ammonia will instantly change to blue. Dr. Cooper, however, does not recommend that this test should be exclusively relied on, but merely that it should be used in conjunction with others, of which the most unequivocal is certainly the actual exhibition of arsenic in a metallic form.

18. *Remarkable Case of Hepato-pulmonic Disease.** The Marquis de T——, sixty-eight years of age, had enjoyed good health till the year 1794, when he underwent excessive fatigue during the emigration, and was, soon after, seized with violent pain in the right hypochondrium, with all the symptoms of acute inflammation. A tumour now appeared in that region, and fluctuation soon became evident. This tumour burst spontaneously, and discharged an enormous quantity of a greenish purulent liquor, together with a great number of biliary calculi. It was long before this abscess healed. In the course of the succeeding ten years, four similar abscesses formed in the same place, and all accompanied by a discharge of gall-stones. After this epoch the Marquis's breathing was never very free, and he felt a tightness about the region of the liver, which inclined him to stoop in that direction, and which he attributed to adhesions formed during the different inflammatory attacks. Extreme emaciation now took place, accompanied by a slight cough, a very deep tinge of the skin, and a *tout ensemble* indicative of suffering—yet his appetite was good, his sleep tranquil, and the general functions of the system very little deranged. During the next twelve years he was frequently threatened with a return of the hypochondriac abscesses, but they were always prevented by local bleedings, diluent regimen, and topical emollients. About six months before his death an excessive difficulty of swallowing came on, which was some times mitigated by opiate embrocations, leeches, blisters, &c. but always returned, and was soon afterward accompanied by

a habitual and copious exspuition of a glairy fluid. There was also occasional expectoration, without cough, of thick and puriform substance. The dysphagia now became so great that swallowing was nearly annihilated, and when any thing was got down, it was at the expense of pain the most intolerable. The whole hypochondriac region was now exceedingly sensible; the pulse became frequent; the puriform expectoration and glairy exspuition increased, and the emaciation arrived at the most extraordinary pitch, notwithstanding the difficulty of swallowing decreased towards the close of life. Diarrhœa now supervened, and he died a perfect skeleton in June last.

Dissection. Peritoneum sound. Mucous membrane of the stomach was of a violet colour, and that of the colon sprinkled with ulcerations, some of them of considerable size. The liver was not half the natural size, and firmly agglutinated to the diaphragm by a white fibrous substance, in some places nearly as firm as cartilage. It was firmly adherent to the pylorus and other adjacent parts by similar fibrous substance. There was no trace of gall-bladder; but in its place was a depression occupied by fibrous substance similar to that which glued the liver to the neighbouring parts. The ductus communis choledochus was perfect, and the structure of the liver itself did not appear diseased, but was nearly white in colour. The left lung was sound, as were also the heart and pleura. The right lung was converted into a mass of tubercles, among which were several excavations produced by suppuration, (*foyers de suppuration et des cavernes*,) the whole firmly adherent to the pleura, which was itself disorganized. The fauces, pharynx, and œsophagus, examined with the greatest care, presented not a single trace of disease. The pia mater spread over the hemispheres of the brain was covered with a transparent gelatinous layer, but the brain itself was sound.

The above case will furnish food for much reflection and some speculation. The state of the lung on one side does not at all surprise us, for it would really appear that *one* lung is a great deal more than is necessary to support life, and even a tolerable degree of health. We have seen so many instances where the functions of respiration and circulation were kept up by a few cubic inches of permeable lung, that nothing hardly can astonish us on that head. The dysphagia is a puzzler. The scoffers at "*inexplicable sympathy*" will, we apprehend, have some difficulty in accounting for this distressing symptom in any other way. How far the destruction of the gall-bladder and diminution of the liver itself were connected with the extreme emaciation and other phenomena, we will not pretend to say; but we are disposed to think that the disease in one side of the chest was not likely to be the sole cause of this emaciation. That the unnatural colour of the skin was connected with the hepatic derangement, will, we think, not be questioned. The state of integrity in which the parenchymatous structure of the liver was found (although the colour was altered) would lead us to suppose that the series of abscesses in the right hypochondrium were confined to the gall-bladder itself, of which we have seen some instances, and of which several other instances are on record.

19. *Epilepsy*.* In a well written paper on epilepsy, in which Dr. Shearman advocates the doctrine of nervous, rather than *vascular*, disturbance, as the first link in the causation of the disease, we find the following passage. "The medicine which, in my hands, has more frequently succeeded than any other in removing epilepsy, is the elutriated oxyd of tin, given in the dose of from ℥ij. to 3j. to an adult, night and morning, for about four days, at the end of that time giving a purgative, and again resuming the medicine or not, according to its effects upon the system, or its apparent power over the disease. That it possesses powers different from, and superior to the other preparations of the same metal, I am fully convinced, and I think it deserves a trial by practitioners after they have been disappointed of success in the exhibition of other remedies." Knowing Dr. Shearman to be a man of correct judgment and strict candour, we offer the above passage to the notice of our brethren at large.

20. *Strictured Oesophagus*.† Dr. Kinglake's case of *real* stricture in the *oesophagus* exhibits a striking contrast to the *supposed* case of stricture in the same number of our respected cotemporary. The site of the obstruction is not stated; but it was three inches in extent, and of almost cartilaginous hardness. The poor man died of inanition. Quicksilver to the extent of one or two ounces was given twice or thrice a week, which passed the strictured part, and descended through the bowels "rather in an unctuous than in a globular or metallic form." No pain or inconvenience was experienced by this process.

Our readers will remember that a few numbers back we stated a remarkable case of *volvulus*, where no traces could be found of the quicksilver which we exhibited to the patient the day before death. The above observation of Dr. Kinglake's seems to be somewhat similar.

While we congratulate Dr. Kinglake on the great increase of perspicuity in his language of late, we cannot help observing that it is still too redundant. The substance of this case might have been communicated in one page, as well as in four—and, as Pat says, "we should have gained by the loss." Dr. Kinglake, however, is not singular in his powers of amplification.

21. *Extraction of a living Fœtus from a dead Mother*.‡ It but rarely falls to the lot of a surgeon to have an operation of this kind on hand.

* Dr. Shearman. Medical Repository for September, 1822.

† Dr. Kinglake. Med. and Phys. Journal, Sept. 1822.

‡ Mr. Green. Med. Chir. Trans. vol. xii.

On the 15th of April, 1820, a woman in the last month of pregnancy was run over by a stage-coach near the end of St. Thomas's Street, Southwark. She was immediately conveyed to St. Thomas's Hospital, and expired in twenty minutes after the accident. Mr. Green and Dr. Blundell, after a short consultation, agreed on the propriety of the Cæsarean section, which was performed in less than a quarter of an hour from the death of the mother. On extracting the child it exhibited no signs of life. The umbilical cord was tied and divided—a tracheal pipe introduced, and the lungs inflated. After fifteen minutes artificial respiration the child showed symptoms of returning life. The infant was then immersed in warm water, but the pulse diminished in force and frequency, and the breathing became embarrassed. It was now dipped in cold water, without any marked effect. After a time the breathing became natural, and in 52 minutes the child opened its eyes. It was taken by the friends to a house in the neighbourhood, and put under the care of a wet nurse. On the visit next day it was found that little nutriment had been taken—that the child had not cried—and that its breathing was embarrassed. The infant lived but 34 hours after emancipation from the womb of its unfortunate mother. On opening the body of the latter, it was discovered that the liver was rent through its substance by the crush of the wheels of the coach, and much blood extravasated in the abdomen.

This case, as Mr. Green observes, affords a proof that a fœtus may be recovered, if promptly extracted from the uterus, when the mother has been killed by violence—and this too, under the unfavourable circumstances of death, accompanied by a profuse hæmorrhage. The case detailed is creditable to the zeal, humanity, and ability of the two distinguished practitioners concerned.

22. *Puerperal Fever*.* When Dr. Brennen proposed and exhibited so drastic a purgative as oil of turpentine in puerperal fever, it was considered preposterous, and our continental brethren still quote the circumstance as a fine example of British temerity in the exhibition of what they term heroic remedies. The medicine alluded to is now creeping into use in a great variety of complaints, and among others puerperal fever.

Dr. Payne exhibits his experience in rather vague facts. Most of them are from memory, and all have happened at more or less remote periods. He declaims against blood-letting—trembles for the consequences that are likely to happen from the use of the lancet—"agrees that the disease in question is of an inflammatory nature"—but believes that parturient women are less able to bear the loss of blood than under other circumstances. This is a rambling and inconsistent kind of pathology, which we do not much

* Dr. Henry Payne, of Nottingham. Ed. Journal, No. 73.

admire. If parturient women are less able to bear depletion—so, we should imagine, are they less able to bear the inflammatory disease for which it is used. When inflammation therefore exists in such cases, the sooner it is reduced the better. We strongly suspect that it is with blood-letting in inflammation, as with mercury in syphilis—many remedies will be proposed as substitutes before one is found to stand the competition. Dr. Payne states that oil of turpentine has cured every case of puerperal fever that has occurred to him during the last seven years! If Dr. Payne's experience has been considerable, the remedy, we may safely aver, is here overrated—if trifling, the success of the remedy should not have been stated in such positive terms. We are friendly to the medicine in question; but such sanguine friends as Dr. Payne would ruin any remedy, whatever was its merit.

23. *Purpura Hæmorrhagica*.* Here we have oil of turpentine again. We thought, some time since, that colchicum would have banished the lancet and broke up Apothecaries' Hall:—oil of turpentine now threatens to do the same. What will be the next Herculean remedy to grapple with all kinds of diseases?

Dr. Nicholl has exhibited the oil of turpentine in three cases of *purpura hæmorrhagica*. Two of these cases were published in the *Medical Repository* for July 1821, and “in each of these cases there was an absence of every appearance which could call for the employment of venesection; in neither of them was there any visceral congestion; but the cause of the affection seemed to be referable to general want of tone in the extreme vessels.” This view led our author to the *ol. terebinth.* and the result was most satisfactory. The recent or new case was a child two years and a half old, who was brought to Dr. Nicholl, her skin, mouth, gums, tongue, &c. being sprinkled with small black spots, like flea bites. The child was pallid and languid. Half a drachm of the oil with some syrup of senna and water was ordered thrice a day from the first till the 11th of December. The spots gradually died away; but the child being weak, some decoction of bark and acid was prescribed. There was a return of the complaint in March. The *terebinthinatæ* and *cinchonic* medicines were ordered to be taken alternately, and they were persevered in till June, when the child appeared free from the disease. Our readers will readily grant that there is nothing very decided or satisfactory in this case, when we consider that other remedies were conjoined with the turpentine, and that the time occupied with the relapse afforded Nature an ample scope for the cure of the disease. At the same time we are disposed to think that the oil may be a serviceable medicine in certain conditions of *purpura* that do not indicate the use of the lancet.

* Dr. Whitlock Nicholl.

24. *Tartrite of Antimony in Pulmonic Inflammations.** Our professional brethren in this country have very generally been skeptical as to the large doses of certain powerful medicines, especially emetic tartar, exhibited by the Italian physicians. We have lately seen several English medical men, who were eye-witnesses to these administrations, and they confidently assert, *first*, that the medicines were of the usual strength, and *secondly*, that these large doses did not produce those effects which we would be led to expect from their comparative magnitude. We all remember that when the East India practitioners first prescribed scruple or half-drachm doses of calomel, the facts were denied by some in this country, because the effects were not what they hypothetically considered they should be. They are now less incredulous on this subject, and therefore we should not be entirely skeptical as to the practice of our Italian brethren, who have eyes, ears, and brains, as well as ourselves.

The writer of the paper before us resides in the Canton de Vaud, where inflammatory affections of the chest are very frequent and severe. For several years past he has given up all sanguineous depletion and counter-irritation in the treatment of this class of complaints, and trusted entirely to large doses of emetic tartar. He exhibits, for instance, from six to twelve or fifteen grains in the 24 hours, dissolved in a six-ounce mixture, of which he gives a table-spoonful every two hours in abundance of a common laxative pisan. If there occurred much tendency to perspiration, he added two drachms of the spir. ætheris nitrici—and when there was much uneasiness and insomnia, a drachm of tincture of opium was added to the mixture. In general the quantity of emetic tartar was increased three grains daily till the patient took twelve or fifteen grains per diem—a quantum which he has rarely had occasion to exceed. The following were the usual effects of the medicine. The patients generally vomited after the second or third dose of the first mixture, and afterward it either acted on the bowels, or produced no other sensible effect than that of mitigating quickly the symptoms of the disease. The patients generally expressed themselves as very much soothed about the chest, and when the usual doses were delayed, they complained of not being so well. “I have to remark,” says our author, “that large doses of the tartrite produced much less vomiting than small doses, which always gave rise to great distress without beneficial results.” In the greater number of cases this mode of treatment did not require more than eight days—it was rarely prolonged to a fortnight. In a few cases a blister was applied to the painful part, but neither local nor general bleeding was ever used. No case of pulmonic inflammation terminated fatally in our author’s hands since he commenced this method of treatment.

* M. Peschier. Revue Med. Aug. 1822.

25. *Cystitis*.* The unfortunate subject of this paper fell a victim to his curiosity. Having ascended an unfinished scaffold to get a view of the pageantry attending the regalia in its removal from the Castle to Holyrood, (12th August, 1822,) he and several others were wounded by the erection giving way. He had some ribs broken, and a bruise on the loins, which deprived him partially of the power of the lower extremities. Being carried to the Royal Infirmary, he was there cupped and scarified, but, according to his own account, without effect. There being retention of urine, the catheter was introduced in the evening without difficulty, but during the two succeeding days and nights, the patient reported that the efforts of the surgeons were ineffectual in drawing off the water. On the third morning his friends removed him from the infirmary, and on the fourth day Mr. Liston was sent for, who found the bladder reaching to the umbilicus. A full sized catheter was introduced without any difficulty, and two pints of putrid fluid, more resembling blood than urine, were discharged. The fluid was drawn off every day once or twice, for some days, and hopes were entertained of his recovery. But these hopes were fallacious. On the 2d of September, the catheter was passed, but failed to draw off any fluid, and in the evening the symptoms were so threatening that Mr. Liston was obliged to take some more active steps. The bladder could be felt as a circumscribed doughy tumour rising into the abdomen, the superincumbent integuments being oedematous. The catheter was again passed with ease, but only a small quantity of offensive pus came away. The bladder was therefore opened freely by striking a sharp-pointed bistoury into the anterior part above the pubes, and thus making an opening sufficient to admit the finger. A great quantity of putrid purulent matter came away, but was stopped by the protrusion of a *flocculent membrane*. This was withdrawn by the fingers, and the bladder completely emptied. The lining of the bladder was found to be rough, and had lost the disposition to contract. The patient, from being apparently moribund, was greatly relieved; but at his age success could hardly be expected. He lived till the 20th of the same month. The separated membrane was apparently the product of recent inflammatory action; but whether from over-distention of the organ or other cause we feel incapable of saying. We think Mr. Liston was perfectly justifiable in performing the operation above mentioned under the desperate circumstances in which the poor man was placed, and we wish that able and zealous surgeon all possible success in his professional career.

26. *Elongated Uvula*.† Dr. Physic and the editors of the Philadelphia Journal of Medical Sciences desire to draw the attention of their professional brethren to a species of consumption, in many instances of a very formidable character, produced by the irritation

* Mr. Liston. Med. Repos. No. 107. Nov., 1822.

† Dr. Chapman's Journal, No. .

of an elongated uvula, and which is relieved by simply cutting off a portion of it. Whether such a circumstance might give rise to disease of the larynx we cannot say, but we have seen three instances, within the last twelve months, where the relaxed uvula, by keeping up a constant tickling cough, rendered the patients very uncomfortable—indeed very unwell. In two of the cases, the complaint was subdued, though tediously, by styptic and stimulating gargles—in the other case the tip of the uvula was snipped off by a pair of scissors, and the patient was quickly cured.

In the same journal we are informed that the superacetate of lead combined with opium is pretty freely exhibited in America for several affections of the bowels—especially the cholera infantum and dysentery. To an adult they give from half a grain to a grain of the lead with five drops of tincture of opium every hour or two, according to the urgency of the symptoms. In some instances, where it was desirable to act upon the skin, small doses of ipecacuan were added. Occasionally the medicine was omitted, and purgatives exhibited.

27. *Experiments upon the Roots of the Spinal Nerves.** M. Magendie had been, for some time, anxious to make an experiment for the purpose of observing the effects of the section of the posterior roots of the nerves which have their origin in the spinal marrow. He had attempted it several times, but without being able to succeed, in consequence of the difficulty of opening the vertebral canal, without injuring the spinal marrow, and producing death, or, "at the least, severely wounding the animal." During the last month, however, a litter of puppies having been brought into his laboratory, he considered them proper subjects for a repetition of his experiment in opening the vertebral canal. With a single stroke of a very sharp scalpel he laid bare the posterior half of the spinal marrow, covered with its envelopes. He then divided, with ease, the *dura mater* surrounding it, and exposed the posterior roots of the lumbar and sacral pairs, and, by raising them with the blades of a pair of small scissors, he was enabled to cut them on one side, without injuring the spinal marrow: the wound was reunited by suture, and the animal watched. M. Magendie at first believed that the limb corresponding to the divided nerves was entirely paralyzed: it was insensible to punctures and the strongest pressure, and seemed likewise immovable; but, to his great surprise, the animal began to move it, in a very apparent manner, although the sensibility was still quite extinct. A second and third experiment gave an exactly similar result. M. Magendie then began "to consider it probable that the posterior roots of the spinal nerves might have different functions from the anterior, and that they were more particularly destined for sensibility."

He then thought of dividing the anterior roots, leaving the posterior untouched; but he found this easier to conceive than to exe-

* Magendie's *Physiological Journal*.

cute. After some consideration, he decided pass before the posterior roots a species of cat of which being very narrow, might permit him pressing them with the edge of the instrument part of the bodies of the vertebræ ; but this quit, in consequence of the great veins which contained, and which were opened at each m In making these attempts, he perceived that *dura mater* the anterior roots might be seen immediately before piercing that membrane. Mately divided all the pairs which he was desired in the preceding experiments, only cut those purpose of comparison : the limb became immoveable, whilst it unequivocally preserved finally cut, at once, both the anterior and posterior there was an absolute loss of both sensibility and repeated and varied," says M. Magendie, "the several species of animals : the results which have been confirmed in the most complete manner the anterior and posterior roots. I am for searches, and shall give a more detailed account next number ; it is enough for me, at present, to assert positively, that the anterior and posterior which spring from the spinal marrow have different the posterior appear more particularly delicate whilst the anterior seem more especially con-

23. *Apparatus for Removing Poisons from* by Mr. Jukes and Mr. Bush.* It (Mr. Jukes's) gum tube, a quarter of an inch in diameter, half in length, terminating at one extremity in a with several perforations ; the other extremity screw or by plug (the latter is preferable) to a sufficient size to contain at least a quart of liquid cock fitted to it, in a similar manner as in Instead of the bottle, a pewter syringe, of an can be adapted, in the same manner, to the flexion by the syringe is performed more quickly, perhaps, be preferred by some. In the have neither bottle nor syringe, the tube will answer the purpose, if the operator apply firmity, and thereby institute the office of a siphon

Application. The patient ought to be placed the globulated end of the tube be then carefully curved over the curvature of the stomach, either through the

* Med. Repos. for October. 1822 ; London Med. Repository, 1822.

may be thought proper. Having previously filled the *bottle* or *syringe* with warm water, at the temperature of 150°, screw or plug it to the tube, turn the stop-cock, and gently force the contents into the stomach. The then diluted contents are to be immediately withdrawn by pulling up the piston; or, if the *bottle* be applied, the same effect will ensue from its elasticity enabling it to recover its original form, by which the fluid contents will return, charged with the poison. This operation ought to be repeated, till the water, which is withdrawn, becomes clear and tasteless.

In Mr. Juke's experiments, first on dogs, and then on himself and others, assisted by Mr. James Scott, Surgeon, in Westminster, the apparatus was supposed fully to answer the intended purpose. In these experiments, Mr. Jukes swallowed, first, *two drachms* of laudanum; he afterward gradually increased the quantity, until it reached ten drachms: since which, he has administered to several individuals (one of them a female) *one ounce* of laudanum with an equally successful result. If the experience of others should confirm the above statement, Mr. Jukes will have conferred an important benefit on the profession.

Mr. Bush, of Frome, has proposed a similar apparatus in the September number of the Medical and Physical Journal; but from the violent and unmannerly attack which has been made on that gentleman through the medium of a popular journal, the name of which we do not choose to introduce into our pages, but with which Mr. Juke's friend is reported to be connected, we augur no good to the public—but only a job for filling the pockets of some individual. At the same time we have reason to believe that Mr. Jukes himself is a respectable and a well-informed practitioner.



29. *Attempt at Suicide by swallowing a Key.** The following case among many others will excite some melancholy reflections on the fate of our late minister for foreign affairs. On the 28th April last, M. Piorry was called to the hotel de la Bibliothèque, where he found a man of athletic form and military appearance, in a state of complete insensibility. He had gone to bed in apparent tranquillity the night before, and was found, at a late hour next morning, lying on the ground in the state above described. On examination, M. Piorry observed that the face was flushed, tumid, and the vessels injected—the lips livid—an ecchymosis on the left cheek—contused appearances on the neck—complete immobility—nausea, and vomiting of a frothy slime—tongue clean—respiration embarrassed pulse frequent and strong—apparent abolition of sense—no answers to any questions.

M. Piorry naturally asked himself, what is the cause of all these phenomena? Has the patient experienced an attack of epilepsy?

* M. Piorry. Journ. Gen. de Medicine, Juillet 1822.

Has he attempted to strangle himself? Has he taken some poisonous substance? and, if so, what is the nature of that substance? These were questions which naturally occurred to the medical attendant, but were not easily resolved. Not knowing what to do, and in order to gain time, M. Priorry endeavoured to make the patient swallow some spoonfuls of sugar and water, (eau sucrée,) which were immediately vomited up. He next determined on opening a vein—a measure that was clearly indicated at all events—but just as he was preparing for the venesection, he observed that the patient opened a little his eyes. He reiterated his questions—M. B. lifted up, with difficulty, the right hand, and made a motion as if turning a key of a door. It instantly struck our author that the miserable man had swallowed a key—the mode in which the unfortunate Gilbert had perished, and on pushing his fingers into the pharynx, he was soon convinced that the key of the chamber door was lodged in the œsophagus! Professor Roux was now sent for, and, after several unsuccessful attempts, the key, together with an oblong piece of copper attached by a chain to the handle of the instrument, were extracted from the throat. The alarming symptoms immediately subsided; but the irritation and inflammation occasioned by the foreign body required prompt and decisive depletions, both local and general. Presently his speech was restored, but he refused to give any account of the motives which led to the suicidal attempt. In the succeeding night he made fresh efforts to destroy himself; first, by hanging with the bed-clothes—and that failing, he endeavoured to strangle himself by squeezing two chairs against his neck. These attempts proving insufficient, he again swallowed the same key as far as he could possibly push it down his throat! He was nearly dead when found in the morning; and now the course was pursued which ought to have been pursued in the beginning. He was taken to the hospital, the key extracted, a straight waistcoat applied, and rigid discipline, in respect to depletion and diet, enjoined. By these means all disposition to suicide, in other words, the mental alienation under which he laboured, was soon subdued, and he left the hospital in perfect integrity of mind.

This is a good example elucidating the necessity of guarding a person by the strictest surveillance from the moment that he evinces the slightest symptom of mental alienation—*whether the aberration manifests itself by incongruous expressions or attempts at self-destruction.* This precept should be engraven on the mind of every medical man, and no circumstance should prevent his unfolding it to the parties concerned the moment it is necessary. Procrastination is not, in these cases, merely the “thief of time,” but actually the executioner of the unhappy patient.

30. *Spinal Distortion.** Mr. Bampfield, who has lately been directing a good deal of attention to the subject of spinal distortion,

* Mr. Bampfield. Med. and Phys. Journal, Nov, 1822.

is now publishing an essay on the complaint in our respected contemporary. The general principle of cure proposed to be acted on by our author, is not to procure anchylosis by rest and the horizontal position, but to prevent that process by restoring the vertebral apparatus to its pristine integrity of structure and function. By this we believe he means that in the majority of cases where the spine deviates, especially in its earlier stages, from the natural line, there is *not* any ulcerative process that would (if it existed) render anchylosis desirable. What the nature of the diseased state in the bone is, we cannot learn from that part of the Essay yet published; but he seems convinced that it is not ulceration.

The *modus medendi* of our author differs from that of others, as far as we know, inasmuch as he confines his patients on their bellies instead of on their backs, and makes pressure on the projections (this is supposing the spine to project outwards, or, as he not inaptly terms the disease, "excurvation,") by means of a pad, shield, and long roller passed round the body. The apparatus is to be removed from time to time, and manual efforts used to press back the bones into their proper situation. Two pillows are placed under the belly of the patient, and the general health is, of course, to be attended to. The principal physiological reason for Mr. Bampffield's preference of the facial horizontal position in excursions of the spine appears to be the action of the *psoas magnus* muscle on the last dorsal and on the lumbar vertebræ; which action, he thinks, will necessarily draw those vertebræ inwards, (when the muscle is on the stretch in the facial position,) and thus strongly promote the cure. We leave it to time and further experience to ascertain the value of Mr. Bampffield's proposals.

31. *Limitation of Emetics.* Dr. Sutton, of Greenwich, has written a short paper in the November number of the *Medical Repository*, to show that where we wish to limit the operation of emetics to the stomach, and prevent their action on the bowels, we should add five or six drops of laudanum to the emetic draught, which, in his experience, has answered the purpose in question.

F 32. *Gonorrhœa.** Mr. Churchill has made several judicious observations on the treatment of gonorrhœa—none of them very new excepting the following precept, which we shall here extract. "The company of women should be avoided, and all those various causes which excite sensual ideas; to secure which, we should discard feather beds and their warm appendages. To the students of Oxford and Cambridge I recommend attention to Euclid; to those of the law, a revival of the statute book; whilst those of my own profession will do well to read Barclay on Muscular Motion, or Hutchinson on Infanticide."

* Mr. Churchill. *Med. Repos.* 104-5.

BIBLIOGRAPHICAL RECORD;

OR,

Books received for Review within the last Quarter.

1. Tentamen Medicum inaugurale de Cholerae Morbi, qualis praesertim in Orientis Indie erat Causa, Proxima, atque Pathologia Inquisitionem Complectens. By JOHN FAWCETT, M.D. Assistant Surgeon to the 24th Regiment.

☞ *A good deal of ingenious theory is brought into action in this little thesis.*

2. Dissertatio Medica inauguralis quædam de Febre sub Tropicis Regionibus accedente complectens. By PATRIC M'TERNAN, M.D. Surgeon in the Royal Navy.

☞ *Dr. M'Ternan shows the fatal consequences of pursuing the Brunonian System, which happened under his own eyes on the Coast of Africa; and the good effects of the antiphlogistic method of treatment in the West Indies, Bermuda, &c.*

3. De la Ligature de l'Artere dans l'Operation de l'Aneurisme par la Methode Moderne; Thèse présentée et Soutenue à la Faculté de Medecine de Paris, le 26 Juillet, 1822. Par AVO. PECOT, de Besançon, Docteur en Medecine, Ex-chirurgien interne de l'Hôpital civil de Besançon, &c. Quarto, pp. 62, with plates. Paris, 1822. Presented through M. Breschet, M.D. &c.

4. REVUE MEDICALE, &c. for May, June, and July, 1822.

5. Discours prononcé par M. LE BARON DUPUYTREN, President de la Faculté de Medecine de Paris. Seance Publique de la Faculté de Medecine de Paris, du 22 November, 1821. Quarto, Paris, 1822. Also, Discours Prononcé, par M. LE BARON CUVIER.

☞ *Baron Dupuytren's "Discours" contains a long, and not inelegant ELOGE on the character and talents of Richard the Naturalist, and Corvisart the Physician, both lately deceased. He also makes some observations on the "Concours" or mode of electing the professors in the Ecole de Medecine, which appears, like many other things, beautiful in theory, but full of difficulties and imperfections when reduced to practice. We shall, in a future number, introduce some biographical notices of Corvisart from Baron Dupuytren's Discourse. Baron Cuvier's Discourse only occupies a couple of pages; but it is full of sentiment, and somewhat tinged with melancholy—especially where he touches on man—"cet être incompréhensible, mélange surprenant des natures les plus contraires, jouet perpétuel des forces les plus opposées."*

6. Inquiry respecting Mr. Charles Whitlaw's Practice in Scrofula and Cancer, and the propriety of instituting an asylum under his care for these complaints, &c. By A RENNIE, Surgeon. Octavo, pp. 38, sewed. Sept. 1822.

¶ *We are surprised that Mr. Rennie should give himself so much trouble in counteracting quackery, for he must be aware that it is out of his power to curtail John Bull's darling privilege of being gulled by every imposter. The enlightened Cockneys who form Mr. Whitlaw's committee and patrons, at present, are soon destined, in their turn, to be objects at which the finger of ridicule will be pointed by their neighbours. The poor wretches now labouring under disease will, it is true, be the greatest sufferers, and they will have ample cause to imprecate retributive justice on the heads of their betters, who are leading them astray—heads, however, which combine the contrasting qualities of being at once as empty of sense as Yorick's in the scene of the grave-diggers—and as impenetrable to knowledge as Memnon's in the British Museum.*

We are not surprised to find the author of "Philosophy of Medicine" prostituting the few [alas! very few] talents he possesses in aiding any cause good, bad, or indifferent, for he has long been lost to a proper sense of medical decorum; but we are surprised that the College of Physicians should permit him thus to lessen the dignity of the medical profession. Gray hairs and even poverty are no excuse for a man's disgracing the corps of which he may be an unworthy member.

7. Elements of Therapeutics and Materia Medica. To which are prefixed two Discourses on the History and Improvement of the Materia Medica, originally delivered as introductory Lectures. By N. CHAPMAN, M.D. Professor of the Institutes and Practice of Physic, and Clinical Practice in the University of Pennsylvania; President of the Academy of Medicine of Philadelphia, &c. Two volumes, 8vo, pp. 420 and 534. Philadelphia, 1821. Second Edition, revised and enlarged.

¶ *We hope soon to have the pleasure of presenting the European reader with an analytical account of these valuable productions of the transatlantic press.*

8. An Inquiry into the Action of Mercury on the Living Body. By JOSEPH SWAN, Member of the Royal College of Surgeons, and Surgeon to the Lincoln County Hospital. Octavo, sewed, pp. 30. London, 1822.

9. Of the Nerves which associate the Muscles of the Chest, in the Actions of Breathing, Speaking, and Expression; being a continuation of the paper on the Structure and Functions of the nerves. By CHARLES BELL, Esq. (From the Philosophical Transactions.) Quarto, with a plate, 1825.

10. Note sur deux Enfants Nouveau-nés, Hydrocephales et Manquant de Cerveau. Par J. BRESNET, D.M. &c.

¶ *In the first case the child lived two days after its deposition in the Hospice des Enfants Trouvés, and appeared to be ten or twelve days old, when left there. The whole of the cerebrum was wanting—its place being filled with serum.*

11. *Revue Medicale*, for August, 1822. Edited by Dr. Amédée Dupau.
[F] *Dr. A. will see that we have attended to the arrangement which he has pointed out to us.*

12. *Anatomical and Physiological Commentaries*. By HERBERT MAYO, Surgeon, and Lecturer in Anatomy. No. 1. August, 1822. With eight lithographic plates. Octavo, pp. 120.

[F] *This first number contains—1. Introductory Observations on the Vital Principle; 2. Experiments illustrating the Phenomena of Muscular Action; 3. Reil's Essays on the Structure of the Brain. 4. Experiments to determine the Influence of the Portio Dura of the Seventh, and of the Facial Branches of the Fifth Pair of Nerves.*

Mr. Mayo is a young gentleman of acknowledged talents, and will make a physiological and anatomical journal both instructive and entertaining, if he takes pains. We hope to be able soon to give an account in detail of this first number; but in the mean time we consider that the undertaking deserves the patronage of the public—and especially of medical societies and book-associations.

13. *A Review of some of the General Principles of Physiology, with the Practical Inferences to which they have led*. By A. P. W. PHILIP, M.D. F.R.S. E. Octavo, pp. 58. (From the *Journal of Science*.)

14. *Observations on the Effects of Mercury on the Organs of Hearing, and the improper Use of it in Cases of Nervous Deafness*. By W. WRIGHT, Surgeon and Aurist to her late Majesty. Octavo, sewed, pp. 24. Callow and Wilson, 1822.

15. *Tentamen Medicum Inaugurale de Hygeia*. Auctore RICARDO ABELL, M.D. Ed. 1822.

16. *Practical Observations on Distortions of the Spine, Chest, and Limbs; together with Remarks on Paralytic and other Diseases connected with impaired or defective Motion*. By WILLIAM TILLEARD WARD, F.L.S. Member of the Royal College of Surgeons, of the Medico-Chirurgical Society, and Fellow of the Medical Society of London. One volume, 8vo, pp. 168. London, 1822.

17. *A Treatise on Dislocations and Fractures of the Joints*. By Sir ASTLEY COOPER, Bart, F.R.S. Surgeon to the King, &c. &c. &c. Quarto, pp. 562, and 30 plates, price one guinea and a half. London, October 1822.

18. *Philadelphia Journal of the Medical and Physical Sciences*, No. 8, for August, 1822.

[F] *We are glad to learn from this number of our respected cotemporary that two new medical journals have been recently added to the list of American periodicals—one at CINCINNATI, beyond the Alleghany Mountains—the other at New-York. We wish them success, and invite their Editors to a reciprocal exchange. If the Cincinnati journalists can point out any channel through which we can transmit them our Review, we shall not fail in punctuality. We have transmitted the present number to the editors of the New-York Medical and Surgical Journal.*

19. A New View of the Infection of Scarlet Fever, illustrated by Remarks on other Contagious Disorders. By WILLIAM MACMICKHAEL, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. and one of the Physicians to the Middlesex Hospital. Octavo, pp. 100. London, October, 1822.

20. On the Mechanism of the Spine. By HENRY EARLE, Esq. F.R.S. Surgeon to the Foundling, and Assistant Surgeon to St. Bartholomew's Hospital. (From the Philosophical Transactions.) Quarto, pp. 8. with a plate.

¶ This paper affords additional proofs of the astonishing wisdom and design with which every part of every animal is adapted to the function it is to perform.

21. The Way to preserve good Health, invigorate a delicate Constitution, and attain an advanced Age; together with a Treatise on Domestic Medicine; pointing out, in plain language, the Nature, Symptoms, Causes, probable Terminations, and Treatment of all Diseases incident to Men, Women, and Children, in both Cold and Warm Climates; as also appropriate Prescriptions in English, &c. &c. By ROBERT THOMAS, M.D. &c. Octavo, pp. 707. London, 1822.

22. An Introduction to the Study of Fossil Organic Remains, especially of those found in the British Strata: intended to aid the Student in his Inquiries respecting the Nature of Fossils, and their Connexion with the Formation of the Earth. By JAMES PARKINSON, Fellow of the Royal College of Surgeons, Member of the Geological Society of London, &c. One volume, 8vo, pp. 346, with ten copper-plates, containing a great number of figures—price 12s. in boards. Sherwood and Co. 1822.

¶ This little work contains a great mass of curious research and most interesting details. It is an attempt to show the difference of forms and structure in the numerous organized beings with which the earth was peopled before the creation of man—to mark their differences and agreements with the present beings—and to point out, from the strata in which they exist, the order in which they probably were formed. The student already delighted in the contemplation of surrounding creation, will be hereby led to another field of observation, where he will perceive traces of the vast changes which this planet has sustained, and will have his wonder and curiosity not a little excited by the remains of those beings which sojourned on this globe before man himself started into existence, at the call of the Almighty Architect. We recommend the book to all who feel an interest in the wonderful works of God, as manifested even in this speck of earth.

23. Select Dissertations on various Subjects of Medical Science. By Sir GILBERT BLANE, Bart. Physician to the King. Octavo, pp. 380. T. and G. Underwood. 1820.

24. Elements of Pharmacy, and of the Chemical History of Materia Medica; containing an Explanation of the Chemical Processes of the London Pharmacopœia, on the different Theories received at present; the Chemical History of the several Articles of the Materia Medica of the London Pharmacopœia, and of some other Articles that have come into use since its publication; together with a Description of the most approved Furnaces actually used in the Practice of Chemistry, illustrated by Figures; and some Account of the Alchemical Speculations of the old Chemists. The whole attended as a Companion to the Author's General Treatise of Pharmacology. By S. F. GRAY, &c. &c.

EXTRA LIMITES.



I.

DR. WILSON ON TIC DOULOUREUX.

To the Editor of the Medico-Chirurgical Review.

SIR,

From the attention which my letter on the subject of MORBID SYMPATHY, published in 1818, received from your Journal of January 1819, I take the liberty of transmitting to you the following case, which has recently occurred. In pages 255 and 279 on the subject of atonic rheumatism, I have suggested an opinion that the severe unmanageable disease designated tic douloureux, has its origin in the digestive organs, as the seat of its primary cause ; and have there also mentioned some instances of recovery, in consequence of the complaint having been treated on this principle. The accompanying case is so decisive on that point, that I am willing to lay it before you, seeing that if you choose to give it to the public in your Journal, it may, perhaps, have the effect of drawing the attention of others to the subject, and lead to a more effective practice in treating this cruel disease.

Case. Peter Storry, a servant, ætat. 58 is affected with tic douloureux in an excruciating degree. He describes the pain as always commencing at a point in his upper lip on the right side, where it is joined by the ala of his nose ; from whence it spreads upward with great violence, shooting along his cheek to his temple, and over the whole side of his head, the pain being so severe as to make him cry out in great agony. It attacks him repeatedly in the course of the 24 hours, in paroxysms of several hours duration, and even during the intervals the pain remains with very considerable severity. He has been subject to occasional attacks of the same kind, in a less degree for sixteen years, of shorter duration than the present, and with intervals of some weeks, or even many months, at a time ; and he has observed that exposure to cold, and wet weather very readily excited a return.

The present fit of the disease came on about the middle of May last, without his being able to attribute it to any occasional cause ; since which time to the present day,

(July 5th,) his time has passed under constant severe pain, and part of every day under intense torment—at present his pulse is natural, and his skin cool; his tongue is loaded with a thick membranous fur, in so far as it is visible; as the smallest motion of his tongue or lips in attempting to speak, or take in food, is certain of exciting a paroxysm, in consequence of which deprivation, together with want of sleep, his strength has become greatly impaired. He has been following medical advice at home for six weeks past, during which time he has used laxatives freely, chiefly saline, with some doses of calomel, he has also had an emetic or two, which did not operate freely: these have been followed with carbonate of iron in considerable quantity, viz. one drachm thrice a day for two weeks—of late this has been changed for the arsenic solution, taken freely without any benefit.

On the 5th of July he was admitted a patient in the Dispensary here; and came under my care. It appearing quite certain, on examination, that his digestive organs remained loaded with an accumulation of morbid contents, and believing that the primary cause of his misery still existed there, notwithstanding the extensive evacuations which had been procured, by the lenient purgatives already administered, it became necessary to have recourse to some more powerful remedy—accordingly, with the concurrence of other medical gentlemen, he was directed to take the following bolus next morning—calomel gr. vij. antimon. tartar. gr. i. ℥. ft. p. duo. By this dose he vomited a considerable quantity of dark coloured corrupted bile, and had three very offensive stools.

He slept a little in the succeeding night, and passed the next day, with some mitigation of his complaint, in thus far—that although the lancinating pains shooting from his lip along his cheek and temple, were as frequent as ever; yet they were less severe, and he had no regular excruciating paroxysm.

The bolus to be repeated every other morning—also to receive an enema, with fifty drops of tinct. opii, every night.

By the second and third doses, he vomited dark coloured bile, each day, and voided offensive stools, mixed with a great quantity of hard scybalæ.

By the fourth and fifth doses he continued to vomit unhealthy looking bile, mixed with viscid phlegm—he also passed offensive stools mixed with scybalæ as before. He is now much relieved, being able to speak and to swallow food without exciting a fit of pain, and rests better in the night; his tongue is considerably cleaned from the thick fur, and he is able to walk about in his room; there are some slight returns of pain along the side of his face, but no regular paroxysm for eight days past. By the sixth and seventh

doses, the discharges were less offensive, assuming a more healthy appearance, his tongue is clean, and his night's rest natural; the occasional transient pains slight, and less frequent, is still gaining strength, being now able to walk out.

July 29th. Ordered to omit the mercurial bolus; continuing the sedative enema; and to take pulv. cinchon. ʒj. every four hours, in small doses, with an opening pill occasionally if necessary.

Aug. 10. Continues better—is permitted to return home—continue the p. cinchona, with one grain of opium, every night, in place of the sedative enema.

Sept. 1st. Has used his medicines regularly, is much stronger, being now able to undertake easy work—ordered to omit the cinchona, and use the following tonic electuary: limat. ferri ʒi. crem. tart. ʒiij. pulv. cinchon. ʒiss. pulv. zinziber. ʒiss. syrup. com. ʒii. m. ft. elect. A small teaspoonful three times a day.

Sept. 15. Continues free from pain, and has acquired a very healthy appearance—repeat his medicines.

Oct. 2d. Continues well—dismissed.

It may be remarked, on the above case, that as it is decidedly one of morbid sympathy, it is likely enough the cure may not be permanent, but that it may afterward recur in this man, if a similar primary cause shall take place in the primæ viæ; but should this happen, the nature of the disease being known, the remedy is at hand. That tic douloureux is in every instance a disease of morbid sympathy cannot with certainty be said: but, from having observed the very extensive power of that law in the system, and judging from what I have witnessed of this disease, as well as from what I can gather from the recital of others, I esteem it a high probability, indeed next to a certainty, that it always is so.

I am, Sir, respectfully yours,

ANDREW WILSON, M.D.

Senior Phys. to Kelso Dispensary.

Kelso, Oct. 15th, 1822.

II.

Case of the late Mr. Knox, Surgeon, of Great Russel-Street, with the Appearances on Dissection. By J. Johnson, M.D.

It may seem a paradox, but I think the following dissection will prove it to be an incontestible fact, that the magnitude of an organic disease will sometimes render it incognizable by the physician and anatomist, during the life of the patient.

The late Mr. Knox, Surgeon in Great Russel-Street, had been for several years in an infirm state of health, owing, as he imagined, to a liver complaint. The prominent features of his disorder were, indigestion, sickness at stomach, and an irregular state of the bowels, attended with loss of flesh and strength. Latterly, and when obliged to confine himself to the house, gastric irritability, uneasiness in the region of the stomach, and a dysenteric affection of the bowels were the predominant sources of complaint. At this time, viz. in January and the beginning of February 1820, Mr. Knox was visited by several of the most eminent physicians, and also anatomists of this metropolis—and they unanimously declared that there were no evidences whatever of any enlargement or organic disease of the liver. I did not see the patient till the day before his death, and the surface of the abdomen being raw from the effects of a blister, I made no manual examination, and hazarded no opinion on the nature of the case. To the eye there was no appearance of an enlarged liver. He died the next day, and I had permission to examine him. The following minutes I sent to some of the medical gentlemen who had seen Mr. Knox before his death, but who were not present at the examination.

"Minutes of Dissection.—Present, Dr. Armstrong, Mr. Ogle, Mr. Plumbe, Mr. Dickenson, and Dr. Johnson. 14th Feb. 1820. Considerable emaciation—sallowiness and slight yellowness of the skin. On laying open the abdominal cavity, a quantity of yellowish serum ran out. The liver was enormously enlarged, filling both hypochondria, the epigastric region, and stretching from the ribs of one side to the ribs of the other. It also extended downwards to near the umbilicus. It was studded both on the convex and concave surface with irregular-sized white tubercles, not very prominent, except at one part of the concave surface. The substance of the liver being cut into, presented a structure almost totally morbid. The tubercular masses were in various stages: some of them pretty firm, white, and homogeneous; others soft, and almost gelatinous, while considerable masses of them were broken down into a fluid resembling pus or cream. From one of these depôts a continued stream of this purulent-looking fluid issued, on being cut into by the knife.

There were very few traces of the original parenchymatous structure of this organ remaining, and these portions were pale, flabby, and thinly distributed among the disorganized portions. There was some thin watery bile in the gall-bladder. On the under surface of the diaphragm, and exactly opposite to a rather prominent and irregular tuberculated mass, was an elevated morbid structure, very hard, irregular, and precisely corresponding in size, with the projecting tubercular mass on the liver. It appeared to be caused by the irritation of the latter.

The stomach appeared sound externally, but the villous coat was as smooth and pale as a sheet of writing paper. It could be easily peeled off from the subjacent muscular coat. The pyloric orifice was little, if at all, contracted; but its parietes were enlarged and indurated into a solid and irregular scirrhus mass. It is curious that exactly opposite the pylorus, and in contact with it, was a rugged, hard and irregular tubercular projection of the liver, and which may be considered as having long kept up a degree of irritation upon that part of the stomach which was in contact with it. This idea is strengthened by what was seen on the diaphragm, as above stated. There was no ulceration of the pylorus. The pancreas was somewhat enlarged, and appeared to partake a little of the morbid structure of the liver.

The first order of mesenteric glands were enlarged and intensely indurated, appearing like a thick-set row of white beads strung all along the interior curvatures of the small intestines. The other mesenteric glands were not much affected. The large intestines were irregularly contracted and dilated in several places. There were ulcerations in several parts of the mucous membrane of the large intestines. The thoracic viscera were sound."

It is almost needless to remark that the uniform expansion of the biliary organ over the epigastric and hypochondriac regions, its thin edge losing itself among the intestines in the umbilical region, was the cause why no enlargement of the liver could be detected by the hands of physicians, surgeons, and teachers of anatomy, during the life of the patient. This statement, therefore, is not meant to insinuate any want of discrimination on the part of the medical attendants, but to show what sources of fallacy we have to contend with, in the investigation of diseases, and how cautious we should be of giving hasty and decided opinions on the nature of internal lesions. It is remarkable, but it is reasonable enough, that the *confidence* of our decisions, on these occasions, is generally in an inverse ratio to our years and experience. The perusal of the above case may teach the juniors of the profession *humility*, which is an attribute of wisdom, and

induce them to be not only cautious themselves, but merciful and charitable to their brethren.

I think an attentive consideration of the above appearances would lead us to trace the origin of the disease to a tuberculated state of the liver, and to view the other lesions, functional and organic, as consequences of this state. It may, however, admit of doubt whether or not the induration of the mesenteric glands was coeval with the disorganization of the liver. The disease was evidently incurable from the beginning: and it is sufficiently obvious that any very active mercurial treatment would be more likely to do harm than good. I may be permitted to make one more remark. The size of the abdomen, during life, could not have been in proportion to the great emaciation of the body generally:—and although this, of itself, would not lead us to suspect enlargement of the liver, it was a strong indication of disease of structure in some part or parts of the abdomen.

JAMES JOHNSON.

Spring Gardens, 1822.

III.

SIR,

Lincoln, Sept. 13th, 1822.

I have taken the liberty of sending you the following case, as it appears to me to confirm the statement of M. Richerand which is noticed in the 427th page of your excellent Review.

J. SWAN.

Joseph Ashton, ætat. 48, was admitted into the County Hospital in October 1821, with a cancerous disease, which occupied the right angle of the mouth, and extended over the whole of the lower lip. It was evident the disease must soon prove fatal; and it was the desire of the patient that I should try to relieve him. I began my incision at the upper lip, as near to the angle of the mouth as the disease would allow; and continued it very near to the masseter muscle. I then made another incision obliquely towards the chin, and removed the whole of the lower lip, nearly as low as the chin. I separated the small remaining part from which I removed the lip with the scalpel, from the jaw, to allow of its being drawn towards the upper lip. I brought the parts together with sutures, but nearly the whole wound flew open; nevertheless it healed very well, and the part supplying the place of the lower lip was drawn considerably towards the upper one, so that the mouth performed all its functions well, and had a much better appearance than could possibly have been expected. Had the removal of the lower lip occasioned much inconvenience, it was my intention to have made a new one from a portion of the skin under the chin.

XIII.

CORRESPONDENCE, INTELLIGENCE, &c.

WE have again to call the attention of our foreign, and more especially our American brethren, to the thoughtless custom of transmitting packets to us by post. Two parcels (we imagine of journals) lately were presented to us by the postman, one having 3*l.* 6*s.* and the other four pounds sterling, marked as postage. We were obliged, of course, to refuse them. We request those gentlemen who honour us by the transmission of journals or books, to take opportunities of sending them by *private hands*, and thus prevent the disagreeable necessity we are under of returning them to the post-office.

Some of our friends are alarmed lest we should introduce new changes in our Journal. They need not be alarmed. We will make no change. The regular limits of the Review (224 pages) shall *never* be encroached upon, or devoted to any other purpose than that of reviews :—but if we choose to give *Extra-limites* papers at the private expense of ourselves or our contributors, surely the public have no reason to quarrel with us for such conduct. If the *Extra Limites* are not good, the subscriber pays nothing for them, and he is not forced to read them—if they contain valuable matters, we think we are entitled to thanks rather than censures for introducing them free of expense.

The Medical Intelligencer has misunderstood us when we alluded to the coincidence of opinion between Drs. Curry and Armstrong respecting typhus fever. That coincidence only referred to the *etiology*, and not to the name or abstract nature of the disease. Both the distinguished physicians in question have attributed the fevers, usually denominated typhus, of late years, to a terrestro-aërial cause, or, in other words, to malaria, rather than to contagion. This is the coincidence to which we alluded, and we adhere to the statement which we then made.

Mr. Godfry's letter respecting a quack calling himself "Dr. Bloomfield," has been received; but it would be useless to portray the tricks of such wretches to our professional brethren, and beyond the faculty a medical journal is very little known.

We have it in contemplation to adopt Mr. Kingsley's suggested improvement in respect to the index, at the end of the volume. We thank him for the hint.

QUIDNUNC's letter (the postage of which, by the way, ought to have been paid by *him*, for it was not worth 1*s.* 1½*d.* to us) has been received. He informs us, among other things, that most of our reviews are anticipated by our cotemporaries. The remedy he proposes would be infinitely worse than the disease. We neither did nor do pretend to give the *earliest* account of books, or to be the first to pronounce sentence on their authors. Our object and

end is to give the *fullest* account of publications—and that cannot be done, in a quarterly journal, unless we are granted time to do so. Be it remembered that our vessel is large, heavy laden, and a slow sailer, making only four instead of twelve voyages in the year. And yet we could show our friend QUID some sturdy proofs that there are many customers for these stale commodities; for notwithstanding the multiplicity and velocity of medical journals, it happens occasionally even yet, that, “news much older than our ale goes round.” Be that as it may, we are sorry we cannot comply with Quidnunc’s proposed changes in the constitution of our Journal. Our present maxim is “*nolumus leges operis mutari*,” lest there should, at no distant period, be written on the tombstone of the Journal, an epitaph that might probably apply to some of Dr. QUID’s patients—“we were doing well—took *farther* advice—and here we are.”

P. S. You advise us, dear QUID, to change the title and envelope of the Journal. Pray set the example by *enveloping* your next epistle in a frank. Nothing is so vulgar as those long drawing figures of the postman on the *cover* of a letter. Besides a man of your *mutable* politics must have many patients in Parliament.

The epistle of ANTI-EMPIRICUS came to hand, but in it we clearly discern the QUACK. No virgin can look more demure (at a marriage or a sermon) than the courtesan;—and none thunder forth such loud anathemas against *irregulars*, as those whose conduct is guided solely by chicanery and disingenuity—which are more dangerous and disgusting than open undisguised Charlatanism.

Who can *think* one thing, and another *tell*,

Our soul detests him as the gates of hell.

In reply to O. P. we beg to say that we are in opposition to no man, and much less in hostility with any of our cotemporaries. The day, we can confidently predict, is past, when the editors of medical journals shall disgrace themselves and insult their readers by venting their private feelings in personal abuse of their competitors. Urbanity has now superseded illiberality in the medical periodical press.

NOVELTY.

Our readers will have perceived that Messrs. Jukes and Bush have *invented* an apparatus for extracting poisons from the stomach. The same apparatus was proposed by Boerhaave, and brought to perfection by Dupuytren and Renault in France. The whole apparatus, exactly as described by Mr. Jukes, may be seen in Orfila’s toxicology, vol. I. Sect. 84. So much for the novelty of the thing.

Obituary.

DR. MARCET.

This distinguished physician has paid the debt of Nature rather suddenly. The immediate cause of death was arthritic inflammation transferred to the stomach. On dissection the heart was also found in a diseased state.

At the first meeting of the Medico-Chirurgical Society, after the death of Dr. Marcet, an eloquent eulogium was pronounced by Dr. Cooke on the character, talents, and acquirements of Dr. M. the original founder of the society. Sir Gilbert Blane, Dr. Baillie, Mr. Charles Bell, and some other members followed, and a resolution was unanimously passed that a portrait of Dr. Marcet, by one of the first artists, should be procured, and hung up in the society's house, as a tribute to his memory, a mark of their esteem, and a memento of the loss they had sustained by his death. In further respect to their deceased member and founder, they unanimously agreed to wave all other business for the evening, and adjourn till that day week.

DR. THOMAS SEEDS.

We have to deplore the death of this very promising and zealous young physician, who died lately of fever at New-York. He was the son of Mr. Seeds of Portsea, and, to our knowledge, united very superior talents with a most ardent zeal for, and love of his profession. As a correspondent, as a friend, and as a physician, we have long entertained for this able and estimable young gentleman the most sincere respect and esteem. Would that we were able to pour the balm of consolation into the wounds of his afflicted parent, who has sustained an irreparable loss in the death of such a son!

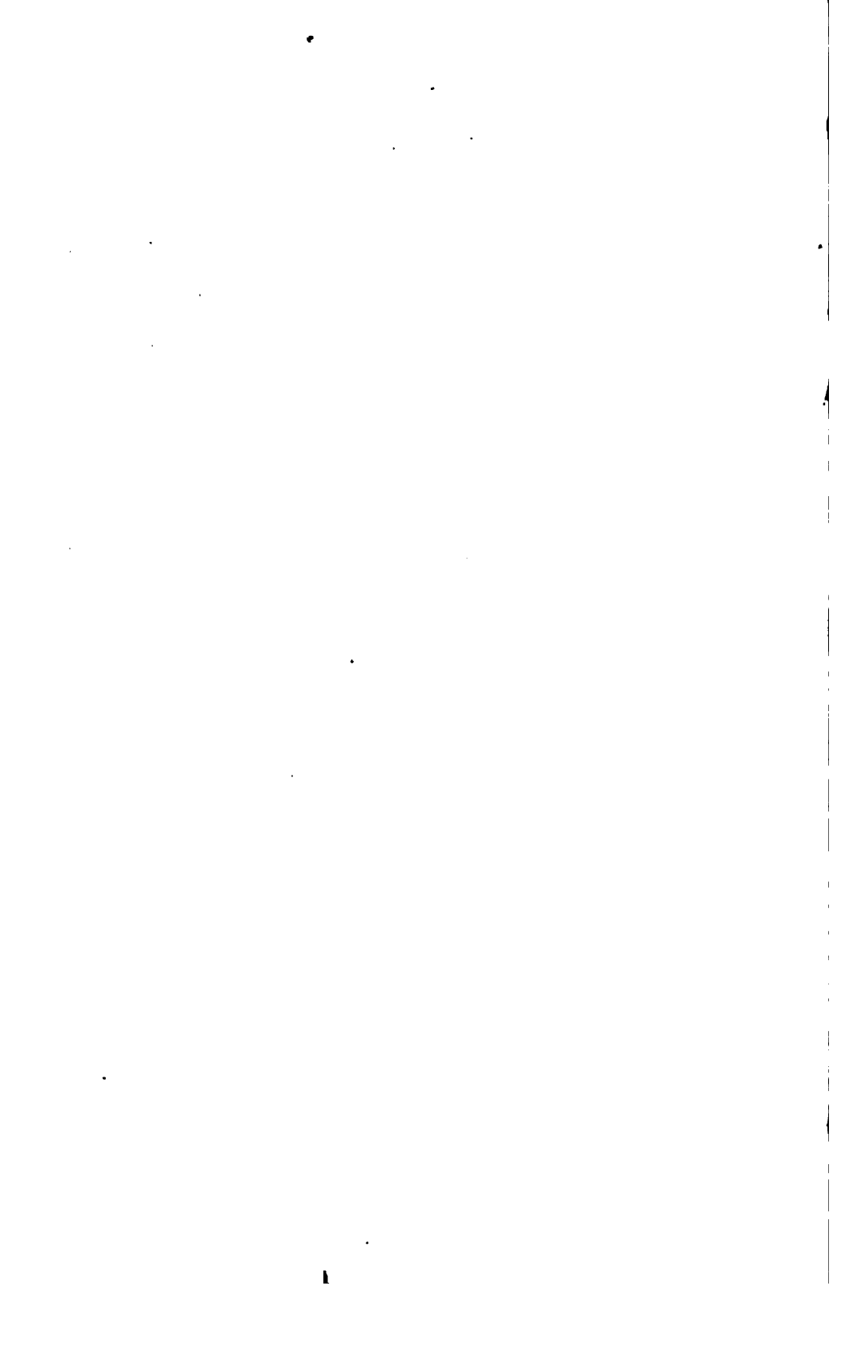
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THE
Medico-Chirurgical Review,
AND
JOURNAL OF MEDICAL SCIENCE.

(*Analytical Series.*)

"Nec Aranearum textus ideo melior, quia ex se fila fingunt; nec
noster vilior, quia ex alienis libamus, ut apes."

VOL. III.]

MARCH 1, 1823.

[No. 12.]

I.

De La Folie, &c. Reflections on Insanity, its Seat and Symptoms, Mode of Action of its Causes, its Progress and Termination, the Differences by which it is distinguished from Acute Delirium, the proper Methods of Treatment, with Pathological Researches. By M. GEORGET, M.D. &c. Paris, 1820.

THOSE "written troubles of the brain" in which "words are not thought, nor thought the mind," have been hid in vast lazarus-houses of human woe, rather as fitted for eternal concealment and for one hopeless course, than as subjects of medical speculation. Mental diseases, however, are now matters of scientific regard, and we hail this as one of the most fortunate essays at discovery and illustration. The author has observed mental alienation for many years in a vast establishment.

"Continually residing," says he, "in the midst of 1200 patients, I have witnessed, repeatedly, every fact advanced, and I have endeavoured to offer such opinions as are founded upon observation."

This is precisely the probationary method of preparation which most entitles an author to regard, and the sort of experience which is stamped with authenticity.

His work commences with some metaphysical reasonings in support of the anatomical doctrines of Gall and Spurzheim:—but it will be obviously irrelevant for us to hesitate in immediately proceeding to an analysis of the more important and interesting parts, which form the professed topic of the publication.

CHAP. I.—*Symptoms.*

Insanity has its peculiar and inseparable concurrence of phenomena, and certain negative symptoms common to other affections. Want of discrimination between the two, has given

birth to voluminous writings on simple varieties of the same phenomena, many of which are mere romances, descriptive of the external deportment of madness, to the exclusion of pathological inquiry or classification. The symptoms are, 1st, local, essential, idiopathic, and cerebral; 2d, general, remote, or sympathetic. The brain is the *immediate seat*; delirium, vigilance, disagreeable sensations in the head, as heat, tension, weight, diminution of sensibility and of muscular contractility, variations of the colour and temperature of the skin of the face and head, congestion and inflammatory irritation of the same parts, epitomize general symptoms.

1. *Delirium*.—Expression and intellectual physiognomy are too irregular to merit observation. Those whose faculties are alienated, seldom mistake men for women, but in a stranger they see either a friend or an enemy, in a house, a palace; others think they hear voices in the air, to which they reply, &c. and, however false the perception, persuasion to the contrary never convinces; the patient always has a ready subterfuge. Sentiment and the natural affections are generally alienated from the nearest ties, and jealousy, indifference, and dislike, are substituted without external motive. The taste for different pursuits, &c. vary. Symptoms of return to the latter, are *very favourable indications*. The exaltation of any moral or physical passion, greatly aggravates insanity; thence satyriasis, nymphomania, and insane royalty. Vivacious insanity is *most rare*, misanthropical *most abundant*. The powers of comparison are defective, the ideas being scattered, incoherent, and unconnected with the present sensations. Mono-maniacs reason, but always upon some imaginary basis. Thus, the *hallucinè* argues with fancied beings, &c. Mono-maniacs are distinguished by being mad on particular topics only, and reason very sanely on all others, chiefly endeavouring to convince individuals that their health is sound. Retrospective memory is generally alienated, or circumstances are perpetually recalled and perverted. The recollection of events in the period of delirium, is preserved after recovery, with the motives of actions. The majority conceive themselves well, feel indignant at their state, and attribute errors in conduct to their unjust confinement; many perceive and ridicule the want of reason in their companions. Some few acknowledge their malady. This disposition, with gratitude for what has been done for them, are most favourable manifestations. They occasionally commit actions without motive, or are impelled by false ideas of the tendency,—thus the mother kills her child that it may go to Heaven. (Dr. Creighton would remark, that self is rather the object in these

actions, and perhaps more correctly,—as frequently instanced by the homicides of the religious insane in this country.) The mental faculties are often exalted by a morbid excitement of the imaginative faculty; this class calculate, invent, &c. but in the former, they are much oftener weakened or obliterated. M. Esquirol attributes intellectual disorders to impaired attention, but this is effect and not cause. Intensity and extent of the symptoms enumerated, vary infinitely in degree from the slightest insanity to the most outrageous—but any of these sufficiently identify the disease,—in whatever degree present. M. Georget adopts M. Pinel's classification, with some slight modifications.—The first is:

Idiocy. Defective developement of the intellectual faculties, want of ideas; sensations and affections partially bestowed. “Between the want of intelligence up to an extraordinary developement of this function, so many degrees exist, that a scale may easily be graduated, the last step of which would be occupied by the idiot, and the first by the most extraordinary genius.”

Idiots may be classed thus: 1st. Those who neglect even the gratification of the animal appetites,—and are prone to perish by self neglect. 2dly. Those that suggest their wants, but never seek to gratify them. 3dly. Those that possess the qualities in which the two first species are wanting, and betray some sentiment and intelligence. Individuals of these, like David Galbetlie, sing wild catches, &c. 4thly. The imbecile, a common variety, are capable of going on errands, and performing such offices as require little effort of understanding. These possess all the mental faculties in a degree, and, also, the natural passions,—and propagate, if permitted.

II. *Mania.*—Delirium; sensations and ideas confused, incoherent, and following in rapid succession. Excitement and agitation, expressed by disordered motions, cries, singing, menaces, and fury.

’Tis a tale told by an idiot,
Full of strange words and fury.

The description of mania is rather eloquent.

“The maniac seems to live in another world; he has forgotten every event of his existence, and the objects of his affections; if he recalls either to his recollection, it is transiently, and without an apparent intention. The exercise of the intellectual faculties represents a chaos. Schemes are formed inordinately, without motive or end; judgment is erroneous, resolutions are vague, and he is alike careless as to the past or the future.” 106.

Mania admits of long intermissions of calmness, and of

improved reasoning. Like the decided idiot they disregard personal cleanliness. The *furor* of mania implies a delirious exasperation against some object, real or imaginary, founded on false ideas. Idiots are not susceptible of these paroxysms.

III. *Monomania*. In this species, the patient is insane upon a particular topic, and sane on all other points. It is the most common species: it is characterized by pride and vanity in men, and love and religion in females. The varieties include nostalgia, misanthropy, spleen, fanaticism, and satyriasis. The mania, *without delirium*, of M. Pinel, is a variety characterized by ferocity, or proneness to the destruction of fellow-creatures. Caligula, Nero, and Louis XI. were monomaniacs of this class. Mania founded on religious dread of another state of being, melancholy, or *monomanie avec tristesse*, are appropriate species of this genus. Monomania with excitement, consists in expressive apprehension of injury, &c. Melancholy is constituted by chimerical fears or griefs, with depression. Suicide is the effect of transient monomania. All the varieties tend to suicide, and patients exhibit great art in effecting their purpose. The spleen of the English, especially in retirement from active life, favours such propensity.

"Want of moral reflection, which conduces to atheism, materialism, and contempt of existence, favours this tendency."

The author ascribes the spleen of our countrymen to causes altogether false. We know of no such thing as "of millions reduced to mendicity," or "of habitual immorality and debauchery, especially among the higher classes, tending to degrade the soul, impair the frame, and lead to violent terminations of existence." *In no other country, is wealth or morality, or any other advantage pertaining to human nature, whatsoever, so fairly diffused.* That we have a bad climate, some fools, several materialists, and many radicals, is doubtless. { }

IV. *Stupidity*. All manifestation of the thinking principle is wanting. The mind, in fact, appears to be all but annihilated, indifferent and passive to surrounding objects, with the exterior appearance of perfect repose. Adele Fouchet, 36 years of age, entered La Salpêtrière, September 1817, for the fifth time, in the above state, exhibiting general insensibility, answering no questions, and never changing the situation in which she was first placed.

"A seton was put into her neck without any expression of pain. Her malady, at the expiration of three months, terminated in ptyalism and cephalalgia; her understanding was restored to its ordinary activity. She was able to relate her past situation. She thought of

nothing ; when spoken to, she retained the first word of the sentence, but had no power to reply ; she felt no pain when the seton was introduced. This is the sole example which has occurred to me of recovery of stupidity as thus characterized." 117.

Our readers will find in the interesting physiological essay of Dr. Jenner on Artificial Eruptions, a similar fact respecting setons in hysteria, &c. there noticed. If the brain is partially compressed, external irritability is augmented ; if fully compressed, obliterated.—(*See Dr. J.'s Essay.*) The spontaneous cure in this case is evidently attributable to change of determination, a principle well illustrated in Dr. Parry's Elements of Pathology.

V. Dementia. Superannuation, imbecility, and decay of the intellect ; the reasoning principle defective, forgetfulness of the past, indifference to the future ; in fact, "second childishness, mere oblivion." It is a consequence of diseases of the brain, of apoplexy, inflammation, &c. The condition of the brain in superannuation is favourable to the production of paralysis.

Vigilance. Idiots being insensible to their own afflictions, sleep most of their time. Vigilance accompanies mania, mono-mania, and stupidity ; the latter being considered the acute form of idiocy. Vigilance may continue from the setting in of the last named maladies to convalescence, especially if there be much excitement. Months, nay years, may elapse without a wink of sleep. Sleep, if obtained, may be partial, disturbed, &c. Its return with diminished delirium is a certain sign, of convalescence ; if alone, it generally announces termination *par la demence*. If wanting in our otherwise improved state, relapse is indicated.

Cephalalgia. Very frequent, especially with females. Intense headachs probably exist for years, before delirium is provoked by moral causes. In the excited stage the brain is incapable of perceiving its peculiar sufferings.

In convalescence the patient is more sensible of symptoms. They decrease as the former advances. They vary in situation, chiefly occupying the forehead and vertex, but rarely the frontal region (*susorbitaire*) as in certain gastric affections. They are sometimes more interior, pulsating, and increased by motions of the head. When on one side (*hemicrania*) paralysis is to be apprehended. They are most frequent at night and evening.

Lesions of Sensibility. Idiots have little cutaneous sensibility to the stimulus of cold or heat, wounds, &c. Mania,

monomania, and stupidity, assimilate at the period of excitement. Patients expose themselves, at this time, to dangerous degrees of cold unclothed—running the risk of gangrene, &c. Melancholies are particularly regardless of external impressions.—*See Histories by Creighton on Mental Derangement.* Excitement having elapsed, extreme susceptibility often succeeds to insensibility. The eye and even the stomach are then morbidly alive to their specific stimuli.

Lesions of the Muscular System. Mental derangement may commence with convulsive attacks. They supervene, however, rarely. Idiots are sometimes epileptic. The most frequent affections of this system are debility or paralysis—the latter happens most frequently to females at the age of 40 or 45, and pronounces incurability. In dementation and idiocy one half are paralytic.

Of the Exterior Connexions of the Brain. The carotid circulation is generally in a state of morbid determination. "At whatever period it occurs, I feel assured of the existence of cephalalgia and vigilance."

The veins, particularly the jugulars, are turgid, especially in rage. The capillaries of the face are injected; the cheeks morbidly warm; and the eyes too animated. Physiognomy differs according to the peculiar turn of the perceptions, expressing royalty in the lunatic king, religion in the devotee, &c.

General Symptoms and Sympathies.—The Alimentary Canal. Anorexia, or bulimia; the tongue white, yellow, or black, and occasionally very red, as in acute gastro-intestinal inflammations. Pain, however, is rarely such as to excite complaint. Constipation is common; diarrhoea rare. These disorders are very fugitive, and are in general soon succeeded by healthy animal habits. Fever, increased action of the heart, and palpitations, are almost certain concomitants of incipient derangement. The skin is apt to become more brown and dry, but the natural colour returns with convalescence. Menstruation is almost invariably suppressed or irregular. As a summary the brain may be said to be primarily affected. Why are other functions so little disordered? The phenomenon is exhibited in all maladies exclusively pertaining to the nervous system, as in epilepsy, hysteria, neuralgia, and paralysis. Health is usually at the ordinary standard between accessions. We are not satisfied with this reasoning, and our observation assures us that absence of alimentary and visceral derangement is very rare in hysteria and epilepsy; and that it very often constitutes a grand link

in the chain of diseased action, exciting cause as well as effect, where the disposition exists in either of those diseases. We need only cite the authority of that skilful practitioner, Dr. Hamilton, the author of the Treatise on Purgative Medicines.

Causes of Mental Derangement. Hereditary disposition has more influence in producing mental derangement than any other malady. Hereditary derangement occurs more frequently among the rich than the poor, and especially among kings and nobles, who are limited in matrimonial choice.

"How many families are in a deplorable state of intellectual degeneracy? The Jews, habituated for ages, from religious prejudice, to intermarriage, few as they are, present similar examples. It is not uncommon to see at the Salpetriere, two sisters, the mother, daughter, and sometimes the grandmother." 150.

"Hereditary derangement is generally announced in good time by whimsicalities of disposition (*travers dans l'esprit*) certain singularities of character, caprice in taste and habits, peculiar and evilly intentioned conduct, little aptitude to the study of the exact sciences, and an immethodical taste for the arts of display, and the pleasures of imagination; sometimes indeed delirium appears to be merely an advanced state of already existing intellectual disorder."

M. Georget attributes the hereditary predisposition, in consistency with the first principles of the work, to original conformation of the brain. Parturition, the crisis of female life, (because, forsooth, women then grow ugly, and fret for the loss of admirers,) superannuation, &c. predispose to mental maladies. Impetuous passions; ungovernable imagination; a vicious education, which does not tend to regulate dispositions, the action of which, in excess, is dangerous; a limited object of mental speculation; hazardous enterprises; the revolutions of states, &c.

"Finally, it may be said insanity never occurs without predisposition; for if it were otherwise, the same efficient causes would always produce the same effects, which does not follow. On the contrary, a moral stimulus which excites this malady in one who is predisposed, causes a fever (*ataxique*) in another, an abdominal inflammation in a third, and nothing at all in a fourth person, who is so constituted as to resist its action."

Efficient or Cerebral Causes. Blows, falls upon the head, and compression, may leave behind paralysis, feebleness, or obliteration of one or more intellectual faculties, but dementia is the only consequent form of mental derangement. *Apoplectic or acute paralysis*, but not apoplexy, often an-

nounces a relapse of insanity, (*deliré*,) or of that variety of dementation which succeeds *la folie aiguë*.

Moral and Intellectual Causes. "Those causes which tend to derange the brain by the very exercise of its own functions, are the most frequent, nay, almost the only causes capable of producing mental alienation." 160.

Ninety-five in one hundred owe their malady to moral commotions. It is excited at an age when the mind is most susceptible of strong emotion, and influenced by powerful interests. Infancy and senility, obviously less affected by such circumstances, are almost exempt. As moral causes have been depreciated, physical have been unduly magnified, but it is evident that hereditary predisposition, parturition, and critical periods, merely increase the frequency of moral affections. The secret chagrins of the female mind are often very difficult to discover; jealousy, vanity, clandestine attachments, a lover's perfidies, often form the latent source. The desire of sexual union, increased by reading, and especially by the *spectacles* of France, often excite melancholy in a form which tends to conceal the real cause.

Moral causes are almost as numerous as the acts of the understanding itself; emotions which operate suddenly and forcibly, or slowly and in a sustained manner, surprise, terror, passion, joy, sorrow, and hatred; and, on the contrary, such causes as imperceptibly concentrate and exalt passions or ideas; *e. g.* love crossed, self-love wounded, religious travail, are influential, especially with females of inferior station. Education and affluence create essential differences. The misconduct, debauchery, and brutality of husbands, poverty, &c. affect the lower class; "ambition's honours lost," excess of study, misanthropy, reverse of fortune, almost exclusively affect the higher orders.

"Excess of religious ideas produces different shapes of madness, according to the individual's character. Superstition united with ambition, and the desire of empire, gives birth to intolerant and persecuting fanaticism, to the desire of ruling in God's name, and of making converts. With the subdued spirit, *outrée* religion produces panophobia, fear of divine chastisement, and demonomania. Finally, its singular union with amorous passions, excites ecstatic love of God, the Virgin, or some saint."

M. Georget of course, holds in view hereditary predisposition as the intermedium between cause and effect. Moral causes act immediately on the brain, whereas their effect on other organs are merely sympathetic—*e. g.* the general expansion in joy, epigastric obstruction in vexation, palpitation of heart in surprise. &c. are absolutely similar to

effects excited in the alimentary canal, by any sudden mental irritation.

Physiological Causes. Suppressions of secretions, natural drains, menstruation, hæmorrhoids, milk; of artificial discharges, or even diseases, long established.* Irregular menstruation is a most frequent cause; and some interesting cases tend to establish the *dictum* of a moral origin. The same theory is said to apply to all suppressions, natural and artificial. Suppression of the perspiration of the head sometimes causes insanity, similar to the sympathetic derangement consequent to organic lesion.

Alcohol and drunkenness, especially among the English, are exaggerated as causes of insanity, and have led to the hypothesis of its being sympathetic of disease of the alimentary canal.

“Drunkenness affects all organs; the man who is completely intoxicated, has neither sensation, understanding, nor motory power: in mania, on the contrary, intelligence is *false*, but it exists; it is the only function greatly affected; the patient has sensations, walks, talks, and eats. The delirium of inebriation is comparable with the sympathetic delirium of severe diseases, and is as fugitive as the exciting cause itself.”

The abuse of alcohol, by enfeebling the general system, and the brain as a part, may end in dementia, (*la demence*,) with paralysis.

Pathological Causes. This includes the sympathetic delirium of acute maladies, and of the fatal windings up of chronic diseases, as phthisis, diarrhœa, &c. Females are often sent to La Salpêtrière as *insane*, with low fevers, or abdominal inflammations, attended with *temporary* delirium. Supposed sympathetic deliria are often mere concurrences with other diseases, though simultaneous and independent of each other, as in incipient phthisis, worms, uterine tumours, fractures, &c.

“The epilepsy which accompanies idiocy is not the cause, but the effect of vicious organization of the encephalon.” 171.

The derangement of syphilitic females recently seduced is owing to a moral cause, and not the simultaneous disease. Timid people affected with diseases decidedly mortal, seldom enjoy a calm state of mind. A colicky female fancying her-

* This is certainly inconsistent with what is afterward said as to the same phenomena being merely progressive effects.— R.

self affected with scirrhus pylorus, became deranged from apprehension, and the abdominal affection ceased—one irritation superseding the other; thus insanity becomes a consequence of other maladies.

Development, Progress, and Termination of Insanity. Though moral agents may cause the sudden explosion of insanity, it is more frequently the result of protracted and repeated morbid actions. The latter are preceded by a first period of incubation, obscure in the present state of our knowledge, but meriting observation, since it would tend

“To exhibit the source of various lesions, which are attended with preparatory organic manifestations, which prove that the cerebral function may be deranged long before it is perceptible to society, or even to physicians particularly skilled.” 178.

Second Period of Incubation. In this period the dawn of derangement is marked by egoistical struggles, inconsistencies, &c. which escape present observation.

“Long before developed insanity, the habitudes, tastes, and passions, undergo a change.”

One struggles unsuccessfully to limit desperate speculations; another becomes suddenly highly devout, and endeavours to shake off his fear of damnation, and all in vain.

A young nobleman took a journey the day after his wife's accouchement without any motive; he exhibited inconsistencies of conduct during the journey; six months afterward insanity burst out. Was not the journey the first act? *Change of character*, endeavour to repress disordered trains of thought, mark this insidious period. The lively become sad; solitary reveries under pretext of study, aversion to locomotion and the presence of others, neglect of their particular profession or pursuit, follow. The period of incubation may last a year or more; corporeal as well as intellectual lesions ensue. Deranged action of the cerebral system, as always happens, is succeeded by disordered functions of other organs. Disturbed sleep, headaches, morbid determinations, heat of surface, disordered digestion, irregular catamenias, finally terminating in catamenial suppression. The suppression of eruptions, rheumatism, and local gout, are sometimes *effects* of the primary cerebral affection, and recur in the same consecutive order as preceding symptoms.

Invasion. Having stated the latent period of insanity, and the primordial connexion of the brain, with the development of the disease, we pass from that period in which the patient still continues to be a member of society to that in which he is obviously unfit for its occupations. Melan-

choly presents the most dubious manifestations; but insu-
lated actions and words escape which denote its presence.
The *aliené* now reasons on and defends his eccentricities, and
believes the reality of his perceptions; vigilance, cephal-
algia, disordered functions, loquacity, laughter, ecstasies,
deep anguish, now occur. Disorder of the brain predomi-
nates in this stage; the developement is not generally sudden,
for the *organ appears to struggle against disease as long as
possible.*

Period of Excitation. Cephalalgia, delirium, and all the
corporeal symptoms increased.

Decline. The bodily organs becoming habituated to the
cerebral malady, recover their healthy actions. Mental de-
rangement remains.

Terminations. Recovery or fixation in an incurable chro-
nic state. The former may ensue as a sudden and sponta-
neous effort of the system, or as an effect of moral agitation,
or mechanical concussion. An *aliené stupide* recovered in
consequence of a fall against a window, but relapsed.* A
young woman fell into profound melancholy, in consequence
of crossed affection; her lover's presence, and marriage res-
tored her—but, says the author, (doubting that this was real
insanity,)

“Marriage may prevent insanity, but I cannot believe that it
will cure it, if once elicited. The patient is then incapable of judg-
ing of that which he is told, or of his own actions.”

Sudden recoveries seldom hold like the more *gradual*.
Convalescence is announced by the gradual, moral, and phy-
sical improvement, and in symptoms already expressed—
sound sleep is *most favourable*; if *wanting or disturbed, con-
valescence is always treacherous.* The irregular bodily mo-
tions cease, the colour and smoothness of the skin returns,
though pale. The peculiar convulsed and tense features of
insanity yield to a calm, though expressive physiognomy.
Delirious immodesty in females is succeeded by the very
reverse, &c. Expression, however, is often deceptive, the
most tranquil appearance may be disturbed by incoherent
ideas. The patient becomes more lean in convalescence.
M. Georget reasons with great good sense against the doc-

* This happened to a tradesman of Gloucester, sometime idiotic; who,
in consequence of a violent push from a stranger, who was indignant at see-
ing an apparently rational individual playing with boys in the street, jumped
up in his sound senses, and returned to his occupation.—*Sir A. Cooper's Lect.*
Auth. Dr. Cheyten.

trine of *Crisis*. Insanity terminates according to the following law :—

“I have constantly observed that Nature proceeds slowly in the re-establishment of organs ; the duration of diseases is relative to the intensity and nature of the organic lesion ; the individual constitution and external circumstances favourable or adverse.”

The restoration of certain secretions, as of suppressed nasal profluvia in catarrh, &c. are to be viewed as effects, and not causes of spontaneous favourable changes. That the favourable change, however, at the eruptive period of the exanthemata, merely indicate periodical coincidences, without any other relation, would be against the general design which Nature always displays, and *which it were useless to imitate*, if not true. As M. Georget's reasonings on this point are not very lucid, we recommend to him Dr. Jenner's luminous observations on this head.

Fifteen or twenty only, out of three hundred cases of insanity, appeared to M. Georget, to be indebted to critical changes. One followed the frequent application of opiate cataplasms, another *gangrenous phlyctenæ* from severe cold, and others *boils or furuncles*.—The truth is, all diseases purely pertaining to the nervous system are very much disposed to yield to supervening affections of another nature, whether natural or artificial.*

The brain which is first affected is also last affected in convalescence. Reproach and false construction on the actions of convalescents should be avoided, and they should also be *removed to a new scene*.

No malady presents relapses or recurrences so frequently as mental derangement. Apoplexies and neuralgiæ observe similar laws. The chronic or incurable state of delirium, mania, or monomania, usually terminates in dementia—if life is protracted to a sufficient period, *i. e.* to abolition or imbecility of the faculties. The class of incurables comprehends idiots, (generally paralytic) the passive, (occasionally reasonable,) and sociable patients. *La demence* is generally preceded or followed by paralysis ; is sudden or slow, or supervenes on apparent convalescence. When the disease degenerates into this state, cerebral energy is irrecoverable. The type of insanity is most frequently *continued*, sometimes remittent or intermittent. Accessions are marked by morbid determinations to the head, with the usual symptoms.

* In the Pontine marshes intermittents exhibit the truth of this assertion, when they affect patients with nervous diseases, in a remarkable manner.—R.

Prognosis.—Recovery is most frequent from twenty to thirty years of age, rarely after fifty. Mental derangement with paralysis, epilepsy, idiocy, and *la demence* is incurable. Physical recovery without mental improvement augurs badly.

Patients apparently phthisical, were cured of this disease by the application of the actual cautery to the thorax, but the alienation remained. Maniacal patients, mono-maniacs with excitement (*exaltation*) stand a better chance than melancholics or lypemaniacs; but of 1223 females cured, 604 recovered in the first year, 502 the second, 86 in the third, and 41 in the following seven. Spring and Autumn are most favourable; Winter most unfavourable, to recovery. Reports of treatment vary according to the nature of the establishment, some admitting incurable cases, others, curable. At the Saltpetrière, the *aliénées incurables*: viz. idiots, epileptics, paralytics, and all above 50 years of age, are separated. Of the other varieties at this establishment, *one half are cured*, according to the average experience of 20 years—a result not exceeded, perhaps, in success elsewhere.

Diagnosis between Insanity and Acute Delirium.—These affections are not easily confounded, save in intermediate cases. The latter consists in a derangement of intellect, similar to insanity, but differing entirely in manifestation, causes, and progress. It is the effect either of affections of the brain, of diseases of other organs, or of the action of certain substances on the stomach. Serious diseases of the brain afford either coma or acute delirium. Compression from any cause excites the former, arachnitis, cephalitis, ataxique fever, &c. the latter. Few acute and chronic diseases terminate fatally without delirium. “It would seem that Nature wished, by this means, to veil the approach of the fatal point.” Phthisical patients are said rarely to endure delirium at the close; according to our observation, this is a mistake. All organizations do not equally affect the brain in their derangements; inflamed serous membranes, acute inflammations of the alimentary tube, readily excite it. Not so affections of the lungs, nor chronic local maladies; hypochondriasis may supervene on the latter. Acute delirium is, of course, present with the symptoms of that disease which excites it.

“It is always accompanied with excitement and cerebral congestion. When not continued, it usually supervenes, in paroxysms, at evening or night, the circulation, at that time, being most active.” P. 233.

“Every function is deranged when any disease is so intense as to cause delirium.”

The functions of the skin are suppressed. The mucous tube is covered with secretions, which vary from yellow to black hues. If the malady takes an unfavourable turn, the pharynx or œsophagus becomes paralytic or convulsed. Black and fœtid dejections usually occur at this time. The bladder is sometimes paralyzed. Delirium is, in general, a dangerous symptom. "It announces the approaching and unhappy end of chronic affections. More than half of those who have it in a continued form, perish." As this applies to delirium symptomatic of organic affections of the brain, the estimate is probably correct. The good effect of repeated small bleedings, almost to exsanguination, we have lately seen in a case of long-continued intermitting delirium, which must have otherwise proved fatal.*

The treatment of symptomatic delirium must, of course, be addressed to the organic lesion, from which it arises. Stimuli, as musk, camphor, &c. increase it. If irritation produces evident congestion of the brain, local bleeding and gentle reduction are indicated. There is a species of delirium, independent of serious lesion of other functions, and probably, a variety of *ataxique* fever, in which, tranquillizing treatment, and opiate *lavemens* produce the best effects—as in delirium tremens.† A table of minute diagnoses between acute delirium and insanity is drawn up.

Treatment of Insanity.—Medical inquiry in every form, should be directed to this difficult object. In the affections under consideration nothing is more necessary or arduous. Ignorance of the cause, has led to endless specific and fanciful methods of treatment; thence, organic causes have been attacked by such engines from the arsenal of therapeutics, as *douche* baths, and cold baths, baths of surprise, falls, leaps, rotatory swings, &c.‡ Messrs. Pinel and Esquirol adopted principles of treatment more consistent with the philosophical progress of medical science. These are regulated by know-

* A case, probably, of chronic inflammation of the brain, according with cases described by Dr. Abercrombie on that head.

† Mr. Hodges, an ingenious practitioner at Maidstone, and assistant surgeon to the West Kent Militia, has informed us, that a fever, which accords with this description, followed drunkenness in his regiment, after exposure to typhus in a low situation. Several were bled and invariably died,—others were treated with antimonial emetics and opium, and invariably recovered.

‡ A case is related of an epileptic brought to the La Salpêtrière with a stomach eroded and stripped of its mucous coat by a long-continued course of lunar caustic. This is an excellent illustration of the folly, wickedness, and inefficacy of quackery.

ledge of the seat and nature of the disease, the mode of action of its causes, and the individual relation to sex, age, temperament, &c. To ascertain the morbid state of an organ, too exclusive importance is not to be attached to derangements of its action; these announce disease, but do not indicate what? Many cerebral lesions are attended with delirium; pulmonary, with dyspnoea, &c. Unexpected phenomena in the diseased organ, as pain, change of texture and volume, disorders in the neighbourhood, afford guides to the desired discrimination. M. Georget vaguely says, in treating insanity,

"We are to consult the absence or presence of excitement or asthenia, and not the species of delirium."

"The treatment of a malady, produced by any adventitious cause, requires no modification; thus, a pleurisy from suppressed menstruation, or suppressed transpiration, claims the same curative processes as simple pleurisy. It is vain to attempt to re-establish menstruation or transpiration; both would observe their usual periods. The removal even of a fixed (persistante) cause, does not always remove the disease; once altered to a certain extent, organization does not return to its natural condition, but with a determinate progress. A foreign body applied to the conjunctiva may cause ophthalmia, but its removal will not cure it."* 251.

This is very fashionable reasoning, especially among those who cannot, or will not, think or see for themselves. Doubtless it is true to a certain extent; but acute inflammation of an internal organ often ceases when brought back to the extremities, and inflammation following suppressed menstruation, often ceases when the hip-bath, aloetic clysters, leech-bore, and leeching the pudenda, restore the determination. We saw membranous ophthalmia lately cease immediately after removal of a mechanical irritant, which had been treated a fortnight in vain. To a certain extent, such reasoning is true, but it savours more of logical squeamishness, than matter of fact, and ought not to supersede the more rational indications, the success of which, when acted on, is verified by infinite experience.

The treatment of mental derangement is both moral and physical, but our ignorance of the relation between these two states of the brain, viz. intellectual disorder and cerebral alteration, renders the effects of remedies not only uncertain, but makes it often doubtful, whether that which is beneficial in one point of view, is not injurious in another. Moral

* Yet, in page 311, M. Georget says, "if you remove a foreign body from the conjunctiva in time, you will prevent ophthalmia, and the eye will suffer nothing."

treatment is more determinately useful than physical, which must be secondary and addressed to symptoms.

Direct Cerebral Treatment, moral and intellectual.—Cures effected by accidental agents do not admit of imitation; a fool is not to be thrown out of a window, or the house of a paralytic to be set on fire, because one recovered his senses, and the other the use of his legs, by such accidents. Philosophical treatment consists in lessening and extinguishing the causes which impelled the development of the disease, and which tend to keep it up, and renew it. Amatory and religious insanity are especially perverse. One requires great strength of soul, the other never gets well without an almost complete change to a state of religious indifference. That from jealousy is similarly obstinate. The indications are, to separate the patient from all objects which operate as causes or motives; to restrain formidable actions; to rectify errors of sense; to fix attention upon a limited number of objects; to encourage reflection on personal conduct and thoughts; and prevent mental aberration;—to excite idiots to think, melancholics to firmness and hope; finally, to restore their habitual thoughts and particular attachments. These indications demand two methods of treatment, passive, or isolation; active, or medical education. The former is almost indispensable in all cases, to facilitate oblivion of past impressions and causes, and excite new. The confidence of possessing authority, is superseded by isolation; and deference exacted by it to guardians.* Isolation by travel is but suited to the splenetic. Particular establishments, unless regulated with attention to reciprocity of condition, do harm. Nothing avails so much as the society of those whose sufferings correspond. The special establishments of France are maintained at the cost of government, especially those which receive the indigent. The Parisian, are the Bicetre for males, La Salpêtrière for females, and the Clarenton for both. The departments are

* The abuses of asylums are prevented in France by legislative control. A gentleman in full possession of his intellects, in Lincolnshire, was put into a house famed for "des manœuvres, au-si viles que odieuses." He wrote to a friend who knew the nature of these intrigues, and who being well aware that, whether mad or not, he never could get out during life, immediately wrote to the keeper, that the affairs of the patient would never enable his friends to discharge the costs. The consequence was, that the patient immediately got free! The house, we were informed, exists in the capital of a neighbouring kingdom, which exhibits men degraded to bestiality, and treated with as little consideration. This too is daily visited by hospital surgeons, men of education and liberal sentiments, who, for reasons best known to themselves, see and say nothing!!!

deficient, and deranged persons are thrown *pêle-mêle*, into the worst parts of hospitals. La Salpêtrière contains 1200 persons, and is separated into two sections; the one destined for idiots and *aliénées en demence*; the other for the maniacal, mono-maniacal, and the *aliénées stupides*, incurable or under treatment. The latter is subdivided into large dormitories, for the classes under treatment and convalescents, and separate beds for the refractory. Gardens, baths, promenades, &c. are attached. It is suggested that these establishments should be built on the ground-floor, and have no large dormitories, because one violent patient disturbs all the rest; that the incurables should be entirely distinct, &c.* La Salpêtrière is directed by a physician, who has notice of all alterations and punishments, receives parental expostulations, &c. There is also a chief inspector, of mild and amiable habits, sub-inspectors, and female servants. The second class protect the timid from the violent, and repress outrageous conduct; the former is the centre of general confidence and authority. Mildness, persuasion, and strict fidelity in promises, &c. is advised. The turbulent are secured by suddenly enveloping the head; they yield immediately when they cannot see where to strike. Change of rooms, the grated court, strait waistcoat, bath, and seclusion, are the only corrective means had recourse to. Men most readily submit to females and *vice versa*. "The latter, seldom entertaining a good opinion of their own sex, usually ascribe the worst faults to their governesses, with whom they are almost invariably on ill terms."

Medical Education, or Treatment. This requires profound intimacy with human dispositions, motives, and affections. It applies to that period of the disease when excitement and general or cerebral irritation is abated, when the ideas are less fixed and tenacious. Patients should never be flattered in the false constructions which they put on their own situation; by such a course, lover, devotee, king, &c. are confirmed in their deranged personifications. The exercise of such ideas is to be prevented; yet, on the other hand, vehement contradiction merely exasperates to no purpose; but the best of all manifestations, *viz.* doubt of the correctness of their own perceptions, points at the period for persuasion and conviction of error. (Who does not recollect the well-timed arguments of Imlac to the astronomer in *Rasselas*?) The excitement of new turns of thought, the rousing of inert

* See Art. Hospital Aliéné de M. Esquirol.—*Dict. des Sciences Méd.*
Vol. III. No. 12.

faculties form a third principle of medical education. For instance, endeavour to convince a king that he is without power, with the hope of his reflecting that he may have been in error. Take *hallucinées* to the situations whence the object of the hallucination proceeds, *e. g.* fancied enemies, voices, &c. search and assure them of the non-reality. Awaken the passions of *aliénées stupides* by reproaching them with indifference to parents, &c. The physician is recognised by the worst patients; and readily obeyed when any other influence is defied. He possesses great power in exciting their confidence: and may make excellent impressions by oracular efforts; *e. g.* by relating to them their past conduct, telling them of their designs, as self-murder, destruction of children, hatred of husbands, &c. Cures are sometimes thus effected. The physician ought to pass some time in the midst of these persons; study the motives of their actions, the varieties of character, and compel them to perform his injunctions and their own promises. Nothing accelerates recovery more than the mutual association of convalescents; for this purpose gardens and refectories are especially necessary. Mechanical employments are of the greatest use, except with individuals whose rank interdicts such pursuits. Bodily amusements suit the latter class. Travel, where fortune permits, is an excellent method of relaxing the mind. Family interviews may be granted when the patient is so far recovered as to demand them. Approach should always be announced. At this period very digestible aliment in small quantities should be used. Agitations are to be avoided.

"Happily in France these unfortunate persons are not exhibited like curious beasts."* 294.

Cerebral Treatment. Excessive bleeding, purging, and the use of pretended specifics has constituted the empirical treatment of insanity. M. Pinel and Esquirol reduced the treatment, first in France, and almost the first in Europe, to physiological principles, but without the wished-for success, from the nature of the disease. Asphyxia produced by hanging, drowning, or blows, the practice of our quacks, is justly condemned. As is usual, these feats are said never to fail; one cures every patient with emetics,† another with vinegar, &c.

* This does not occur so unreservedly in England, since the exposure of the infamies of the old Bethlem Hospital.

† Sir Asley Cooper has told us that the use of tart. emetic *internally* in a large Establishment merely suspended insanity during its action on the stomach.—R

This part of the subject is involved in great difficulties; we are ignorant of the *quo modo* of the functions, moral and physical, of the organization affected. Treatment is consequently indirect, and aimed at a particular lesion wholly dissimilar to any other morbid actions. Indications are therefore guided by symptomatic effects, purely physical, as morbid determinations, &c. Much is promised hereafter from the portfolio of M. Esquirol, and the *Dictionnaire des Sciences Med.* The author does not profess to have advanced science in this respect.

“Diffident of the experience of others, I shall limit myself to that which I have seen. I shall offer no miracles; they are not made for rational people.”

Individual remedies are all of very limited use. At *la Salpêtrière* M. Fouquier's *nux vomica* has failed to cure in any case of *paralysis*! The use of violent remedies is less successful than attention to the prevention of untoward circumstances, and conducting the disease, by well-timed interferences to a fortunate issue. Attention to the due regulation of the mental and bodily functions forms the grand outline. Any active symptoms which concur or supervene, as cerebral congestions or organic inflammations, will demand the most active practice.

Hygiene. The general laws apply to this as to other diseases. Diet and exercise should be voluntary, thereby avoiding irritation. Nudity, if desired by the patient, may be granted—with care to decency, and in winter to the protection of the extremities. Extreme cleanliness. Beds of oaten straw are used for the unmanageable. Narcotics have a variable effect, but are generally less active than with others. Emetics, epispastics, and purgatives, produce the ordinary influence, except that their local action does not seem to exert the same general influence on the brain, and excites less sensation. In the period of incubation, removal of moral causes, as reparation of injury, or reunion of lovers, avails infinitely more than tormenting the organic system with stimuli addressed to functions impeded or suppressed merely as effects.

Period of Excitement. Sequestration, restraint, diminution of irritation, spasm, and convulsive actions. Privation of light and heat, cropping the hair, and exposure of the head, (if wished,) acidulous beverages, with fruit, but no wine. Tepid bath daily, if strength permits, staying in as long as possible, from half an hour to two or more. If an apoplectic tendency obtains it is interdicted.

"The use of baths tends especially to diminish excitement, to calm the nervous system, to dissipate tension, agitation, and increased muscular action; to relax and refresh the dry skin of melancholics. It is of use, and often essential in point of cleanliness." 316.

This stage does not require violent treatment. Blood-letting has been much abused in it, and has produced the worst effects—confirming the derangement of mind, and dangerously enfeebling the system, except in supervening acute affections. In congestions, local determinations, and inflammations of structures, *e. g.* serous membranes, &c. local blood-letting is advised. Pervigilium, which is increased by opiates, requires blood-letting. Dyspepsia, suppressed menstruation, will only be abated by diminishing cerebral irritation, and by the successful progress of the general plan. The author's objections to external irritants and cold affusion, are absurd. "Nine hours' cataract with the shower bath" is certainly extravagant enough. Baths of surprise, and empirical means need no observation. General plethora, common at pubertal periods, require repeated small blood-lettings.* Bleeding from the foot, and cupping the thighs after suppressed catamenia. Baths in plethora are manifestly improper—disposing to internal congestions and apoplexy. Debility with the usual symptoms, and delirium or loquacity, may follow refusal of nourishment, masturbation, or subterranean confinement, or improper depleting treatment. Masturbation in both sexes is generally excessive, and requires restraint, and cold applications to the genital system. If the parotids are pressed, pain compels them to open their mouths, and the introduction of a tube will ensure deglutition. Active cerebral congestion, premonitory of apoplexy, and common to all varieties, demands derivative treatment, by new irritations, nauseating remedies, irritative or mustard pediluvia, (*cepheluvia being used simultaneously*) and foot-bleeding. Small blisters to the arms or thighs, and neck (occasionally.) Sub-inflammation of the brain, denoted by encephalic tension, headach, and the phrenitic physiognomy with vibrating carotids, requires the same treatment.

* The author has well described pubertal plethora, and likewise that at the turn of life; fulness with a sense of sinking and lassitude is present, and oft mistaken for general debility, and most injuriously treated as such. We have found no remedy equal to the sulph. ferri (one grain dose) with the aloetic and sagapenum pill of Dr. G. Fordyce, in these cases. It produces free purging, occasional alvine hæmorrhage, and thus lessens congestions of the spleen, and abdominal viscera.

*For the stupor, insensibility, and cerebral inactivity of ali-
énées stupides ; setons, moxa, &c. to the neck, frequently
repeated and kept up ; they cause a general shock, but require
time for constitutional influence. These, and repeated vomits,
rouse the animal energies in the "most desperate cases."*

Nervous Irritability. This is accompanied by leanness,
despondency, morbid susceptibility, mental or bodily impres-
sions, despair, constipation, fidgets, dyspepsia, and watchful-
ness. The treatment which is here indicated, is purging,
tranquillizing, obviating local actions, diminishing cerebral
irritation. But, above all, the hellebore and "*Naviget Anti-
cyram*" of Horace, viz. mental and bodily transitions by
travel.* Jalap, hellebore, aloes, and colocynth, (*daily, if
not too effective,*) produce serous evacuations, abundantly,
and relieve the cerebral action. At night the system should
be calmed by conium, &c. Orange-flower *ptisans* excellent
in great quantity. Irritants to the skin and baths improper.

In cases which are entirely hopeless under the foregoing
modes of treatment, the empirical methods may be had re-
course to, in as far as they do not endanger life.

Tendency to la demence. This state combined with para-
lysis (acute or chronic) is incurable ; *without it*—very doubt-
ful. As it implies collapse of the mental powers, tepid baths,
tonics, stimulants, derivatives, and counter-irritants, are in-
dicated.

Derangement consequent to Parturition—is generally more
curable than any other, especially if taken early after the
event.

Treatment. Excite the secretions of the intestines and skin ;
give daily *lavemens* of milk and sugar, which cause abundant
stools without irritation—tepid bath. *The general Treatment
of Excitement.*—Renewed blisters to the arms. Breasts hard,
painful, and slow in advancing to resolution, require friction
and ammoniacal liniments: opiate cerate for dressing. Under
this treatment hysteritis or peritonitis rarely follows. Those
who become insane after every parturition should abstain to
prevent the effect.

* A gentleman at Bath, in whom retrocedent rheumatism, torpid liver,
and melancholy of this description concurred, recovered by removal to
Cheltenham, where his rheumatism was restored—under desperate despon-
dency. In this state he was forced from Bath by our admonitions, in direct
innovation on his local advice, which in watering-places seldom tends to
prompt removal, however necessary, from feelings of jealousy towards other
rival situations.—R.

Periodical Derangement. Rarely curable. Tonics sometimes prevent the accession. Syncope, convulsions, fever, vomiting, are generally fugitive, and merely require tranquillizing treatment.—**Convalescence.** Atony is usual at this period, with œdema; embarrassment of speech, itching of parts, and painful digestion, often forerun paralysis, as, also, much sleep. Some who recover become phthisical.—**Vigilance,** also, occurs in convalescence. Tepid baths, active exercise; orange-flower water, blisters to the arms.—**Plethora** is characterized by palpitations, weight in the head, disturbed sleep, &c. Low diet, active exercise, *cautious* blood-letting.—**Cephalalgia.** Very general in convalescence. Tranquillity mostly suffices. External headaches, if obstinate, require pediluvia and leeches to the part affected. If internal, and indicating congestion, active constitutional treatment. Suppressed menstruation, with such symptoms, as cephalalgia and plethora, requires emmenagogues, mustard pediluvia, foot-bleeding, hip-baths or fomentations, leeches to the pudenda.—**Relapses.** To prevent all the preceding symptoms, remove causes, and regulate the functions. Marriage has been proposed for love-madness. It entails three evils, its own chagrins, the hazards of *accouchement*, and of hereditary transmission. *Guard the brain especially,* and, also, the regular action of the uterus and bowels. Baths, partial and general, crural and pudendal leeching, purges, and setons in the arms.

Pathological Researches.—Our analysis of this section must, necessarily, be very brief, especially as the author's opinions entirely refer the origin of mental alienation to organic derangement, not sensible or demonstrable. For his speculations on this point, we, therefore, refer the reader to the work, briefly noticing such pathological particulars as are interesting to all.

The infrequency of manifest organic affections of the brain, and its occurrence in those not affected, leads the author to deem such phenomena as effects, or, at least, merely the causes of such secondary nervous affections, as concur with derangement.

Though mental derangement is not in itself mortal, it necessarily involves exposure to the causes which abridge life. Out of 100 received in the Salpêtrière—

25 die	-	-	-	1st year.	20 die at	-	age.
20	-	-	-	2d	-	-	20 to 30 years.
18	-	-	-	3d	31	-	30 to 40
14	-	-	-	4th	26	-	40 to 50
14	-	-	-	5th to 10th	7	-	50 to 60
7	-	-	-	10th to 15th	9	-	60 to 70
2	-	-	-	at the end of 20 years.	3	-	past 80

Acute maladies very rarely supervene compared with chronic. Diagnosis is very difficult, sensibility being diminished, symptoms may not be well marked; some feign symptoms and diseases; morbid alterations of functions, debility, want of appetite, and dejection, afford the best indications of chronic maladies. "Phthisis destroys more than half the patients admitted into the Salpêtrière. It is *never acute*, and often so *latent* that it is not discovered till *examination after death*." Not the least mark of pulmonary irritation exists, the patient neither coughs, expectorates, nor complains; he attenuates, loses strength, and dies with constipation or diarrhœa; the progress is very slow. All who die in bed, die with the last symptom. The first (constipation) is the effect of atony, and is often wonderfully protracted. It is often incurable, the intestines becoming enormously distended and paralyzed. Mechanical efforts alone avail.

Crania of Idiots.—Almost always mal-conformed. Volume either preternaturally small or large. Out of 100 crania of *aliénées*, 50 may be natural, and the rest irregular, thickened, &c. These changes are probably effects of cerebral development, rickets, &c. In the encéphalon, the rachidian column, and meninges, except in aged *démences*, and in paralytics, *no organic alterations at all are generally observed*, unless fevers, or other acute diseases, supervene.

Dura Mater.—Occasionally thickened and ossified. *Tunica Arachnoides and Pia Mater*.—Chronic inflammation, or serous effusion. *Cerebrum*, sometimes hard, sometimes soft. *Ventricles*. Adhesions, especially at the prolongation of the cornu ammonis, serous effusion, especially in idiots. *Plexus Choroides*.—Bloodless. Full of hydatids.—The *lobes* changed in colour, and putridly soft, especially in paralytics. Partial atrophy of the substance of the brain, is almost peculiar to paralytic idiots,* the portion affected being reduced to one third of natural bulk, and the centre hard or cartilaginous. Erosion. Cancerous-like tumours.—*Cerebellum* soft.—*Spinal Column*. Rarely affected.—*Pleura and Lungs*. Adhesions and tubercles frequent.—*Intestinal Canal*. Mucous coat almost always more injected than naturally.—*Colon*. Transverse arch occasionally oblique or perpendicular.—*Liver*. Preternaturally large or small—sometimes congested, tuberculous, scirrhus, hydatidous.—*Gall Bladder*. Distended with bile; gall-stones.—*Spleen*. Enlarged, soft.—*Uterus, Ovaries*. Tuberculated, enlarged. The author sums up:—

* "This, which is congenital, is probably the immediate cause of defective understanding, as well as of paralysis."

"All the morbid changes observed, are consecutive to the developement of mental derangement, except those in the brains of idiots, which are primary, and connected with the paralytic state."

Chronic cerebral irritation and paralysis, may be effects of such changes. The changes of the thoracic and abdominal organs arise out of accidental circumstances. Finally, the majority of cases exhibit no cerebral changes whatsoever. This chapter, also, contains some interesting inquiries into the extent to which dissections will carry us in the investigation of diseases, and its fallacies.

This book is pretty nearly the best on the subject, not because it abounds in novelty, but, because it consists of dense and genuine experience, and of extensive pathological evidence, viewed and combined with sound physiological judgment, which has enabled the author to develop mental diseases, simply and lucidly, from their dawn to their down-going. We have in it, a final arbitration of many difficult points. Almost every page has been duly analyzed, and the most valuable parts are extracted, and presented to the reader in aid of his practical conduct, whenever these unfortunate maladies form the object of private care.

II.

A new View of the Infection of Scarlet Fever, illustrated by Remarks on other Contagious Disorders. By WILLIAM MACHMICHAEL, M.D. F.R.S. Fellow of the College of Physicians; Physician Extraordinary to his Royal Highness the Duke of York; and one of the Physicians to the Middlesex Hospital. Octavo, pp. 100. London, Sept. 1822.

THIS little essay is divided into four chapters—the first containing, Observations on the improved Value of Life; on the Causes of Epidemic Diseases; on Pellagra; Ergot; and Malaria. The second chapter treats of the Contagions of Small-pox, Hydrophobia, Measles, &c. The third, is on Scarlet Fever; and the fourth, is on the Treatment of the different Forms of Scarlatina. We shall give a brief analysis of these chapters as they stand, interweaving a few observations of our own as we proceed.

Chap. I. It is an interesting fact, now well established, that the ratio of mortality in England, has decreased nearly one third within the last forty years. In 1780, the calculation was 1 in 40 annually; whereas, it is evident, from the

population returns to Parliament, that the annual mortality is now only one in fifty-eight. This change may very fairly be attributed to the bettered condition of the poor—the increase of temperance in all classes—the disappearance or mitigation of many fatal diseases—vaccination—improved medical practice. But, while the sum total of human affliction has been reduced, there is considerable disparity of reduction in the different items. Thus, rickets and scrofula, according to Dr. M. have decreased, while gout, consumption, palsy, and mania, have increased in fatality. Certain forms of scrofula and rickets may have been reduced in number, from the greater cleanliness and better diet of the poor; but, as we consider the prominent character of phthisis to be scrofulous tubercles in the lungs, it may be questioned whether scrofula, on the whole, has declined. On the other hand, we are doubtful that gout is increasing. Or, if it be, how are we to reconcile this with the acknowledged increase of temperance in all ranks of society? * That the great class of the NEUROSSES, with their host of consecutive evils, have, for several years past, been on the advance, there can be no doubt. The wide spread of intellectual excitement—the revolutions, political and moral, with which Europe has been torn—the sudden elevations and depressions of fortune—the anxiety and perturbation attending a hazardous and excessive spirit of mercantile speculation—the fanaticism of some, and the atheism of others, (for extremes approximate,) may explain the greater prevalence of mental diseases now, than formerly. The increase of palsy, our author attributes to “the less general use of blood-letting” now than formerly—especially at spring and fall, when our forefathers regularly got blooded. That something may be attributed to this last cause we are not inclined to deny; but we are far from considering it as the principal cause. The circumstances which we have pointed out as predisposing to maniacal and other affections of the brain and nervous system, will equally conduce to the production of paralytic and apoplectic complaints. †

* Our author has surely been rather inconsistent, when, at page 2, he alludes to the prevalence of temperate habits “throughout all orders of society,” and then at page 3, speaks of the *indulgences and vices* of civilised life, as accounting for the increase of gout. If the latter be increasing, which we doubt, it must, we believe, be owing to sedentary habits and mental anxiety operating on the digestive organs, and through their derangements, inducing gout and other diseases.

† Dr. Dorar, (inventor of the P. Ipecac. comp.) who, by the way, was one of the most canting old quacks that ever perpetuated his own disgrace by becoming an author, states, in his *Physician's Legacy* that during an
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Our author properly remarks, that the more obvious causes of those disorders which affect great numbers of people at the same time, in other words, of epidemics, must be sought for in unwholesome or defective diet—noxious exhalations from the earth—human contagion—and atmospheric influence. We agree with Dr. Macmichael, that improvements in agriculture, by furnishing a greater abundance of the necessaries of life, counteract the first of these causes; and, that quarantine has probably kept our shores free from visitations of plague; but, we are disposed to think, that plague would make little progress, now-a-days, in England, even were it regularly imported to this island. Although, therefore, we should not vote for the total abrogation of quarantine laws, we attach far less importance to them than our author, and we hope to see them greatly modified, even in our own time.

“The *universal* practice of vaccination, (says our author,) would certainly completely exterminate the small-pox.” This we doubt, though we are unequivocal advocates for vaccination; and strenuously recommend its *universal* adoption, if possible.

PELLAGRA.

Several accounts of this curious disease have been published in England; but it has not hitherto been noticed in this Journal. We shall give some short account of it here. It has been principally observed in those provinces of Italy, lying between the Alps and the Po. It is a cutaneous affection, confined to the peasants employed in the cultivation of the soil; and, especially, in the raising of the vine, maize, rice, and millet.

“In the early stage of the complaint, red spots, with slight elevations of the cuticle, resembling lepra, are observable; the skin becomes dry and scaly; vague and irregular pains are felt; and in its inveterate form, the disease assumes an appearance not unlike Ichthyosis. The malady then abates; but as the summer of the following year approaches, it recurs with increased violence; spasms, anxiety, depression of spirits, cachexia, idiocy, and mania are the last symptoms.” 12.

The peasants above mentioned live in extreme misery, not-

extensive practice of forty-seven years' duration, he never met with but two cases of apoplexy. This was in the beginning of last century.

We may here mention, that the commentator on Dr. Dover's *Legacy* states, his having cured epilepsy several times by the mistletoe of the oak, \mathfrak{J} . thrice a day. We believe that the remedy is not generally considered as having been discovered so long ago as one hundred years, for this particular complaint.

withstanding the great fertility of those provinces—having little animal food, and their bread (of maize) being ill-fermented, and deficient in salt. The cure, as may easily be supposed, consists of generous food, wine, tonics, and the warm bath.

ERGOT.

Rye is subject to a disease called Ergot—in English horned or spurred rye. Bread made of it has a nauseous acid taste, and has been thought to be the cause of a spasmodic and gangrenous disorder.

This epidemic, which was also called the *ignis sacer*, raged in Sologne about the year 1650, but was probably owing more to starvation than to the use of injured corn. The disease was accompanied with lassitude, debility, torpor, swelling, and sense of burning heat and excruciating pain in the lower limbs, which became shrivelled, and at length gangrenous. Another disorder ascribed to the ergot, was attended with general convulsions of the muscles. It was from this circumstance, we believe, that ergot was first tried to excite uterine action by one of our continental or American brethren.

MALARIA.

Marsh effluvia, our author properly enough thinks, is too confined a term for Malaria, since there are many marshy districts where ague does not prevail; while, on the other hand, intermittents and fevers of that type are often seen, though the soil be dry, and the ground elevated. There are very few places, we believe, however, of this last description, that prove to be malarious, unless they are in the vicinity of some marsh, or unless they consist of a bibulous soil, that quickly absorbs the moisture, and afterward gives it out to the action of the sun, imbued with decomposed animal and vegetable matter. Of the exact nature indeed of this invisible agent termed malaria, or vegeto-animal miasma, we are entirely ignorant. Its effects are very conspicuous in several parts of Italy, especially in that part called the Maremma, a district that stretches from Leghorn to Terracina, varying in breadth from thirty to forty miles, and being in length about 192 geographical miles, lying near the sea. The greater number of places in this line are dry, airy, and elevated; nor does the victim perceive any visible sign of the presence of the destructive poison he is inhaling. "for the tranquillity of the air and the freshness of the verdure around him, would lead him to suppose he was in the most healthy region." Even in such places, there can be no doubt that the deleterious material, whatever be its com-

position must issue from the earth. We all know that the atmosphere preserves its general constituents under all circumstances, and in all kinds of locality; it is only from the earth that contamination can arise, however it may float about afterward through the medium of the air.

That some cause operating under ground is productive of malaria in Italy, is, we think, fairly indicated by its gradual and progressive march in certain directions—thus it every year comes closer to, and reaches some part of Rome, where it was before unknown.

CHAP. II.—*Contagion.*

How the contagions of small-pox, hydrophobia, measles, plague, &c. first originated, Dr. Macmichael does not attempt to explain. He thinks they existed anterior to any tradition or historical record—that they were perpetuated from age to age and from year to year—that they were confined in the first instance, to some remote district, and were gradually disseminated over the earth by war, conquests, political revolutions, commercial intercourse, and the accidental visits of travellers.* This appears to us to be viewing contagions as plants or animals, which never can arise from any cause or combination of causes except specific propagation. For our own parts we think it far more likely that the same causes which produced these contagions in the *first* instance, may have many times since done the same thing—and that this is the case even to the present time, in several of the contagions, as hydrophobia, measles, scarlatina, &c.

Our author, for instance, thinks that hydrophobia can only be produced “by communication from one rabid animal to another.” That it has no relation to the heat of the weather is proved, he thinks, by the disease being prevalent in Russia, and *unknown in India*.† As to Russia we cannot say; but there is no part of the world where hydrophobia is more prevalent than in India. Can Dr. Macmichael have forgotten the great noise which the practice of blood-letting in hydrophobia, first instituted in India by Messrs. Tymon and Shoolbred, made among the profession here?‡ We cannot understand Dr. Macmichael’s reasoning in the same page, where he proposes the laws of “strict quarantine” against hydrophobia.§

* P. 24, 25.

† P. 27.

‡ Vide Ed. Journal, vol. 9.

§ Lest we may be supposed to misrepresent Dr. Macmichael, for which we should be extremely sorry, we shall give the passage in his own words.

The following sentence does not correspond with our observations and experience.

"Parents considering the measles as a disease almost inevitable, have wisely chosen to expose their children to the contagion at such auspicious times; (when they are epidemical and mild;) so that the disorder may be once well over, and all further anxiety at an end."

We firmly believe that parents would be wise in doing so, especially in *mild seasons of the year*, for surely these must be the great modifying causes; but we have very rarely seen this wisdom manifested by parents. They generally like to put off the evil hour as long as possible, in this and in most other of the eruptive diseases.

On the question why contagious diseases at one time assume a mild type, and at another appear under an alarming aspect, our author offers some ingenious remarks, which we are very far from thinking quite hypothetical or devoid of solid foundation. Dr. M.'s explanation is this:—that instead of an epidemic constitution of the *air*, there is an epidemic constitution of the human system prevailing at the time. But he shall speak for himself.

"In the absence of all other explanation, it has generally been agreed to attribute this difference of type to some occult quality of the air; for we are not more advanced now in our knowledge of the subject, than they were in the days of Sydenham. The *constitutio aeris* is still appealed to as necessary, if not to generate, at least to cause the universal diffusion of contagious fever. But if instead of employing so vague and unmeaning a term, we were content to speak of a *constitutio epidemica*, or that peculiar state or condition of body, into which a great number of people are brought by having been subjected to the operation of the same physical and moral causes, something more distinct and intelligible would be expressed.

"These causes are very numerous, and various in their character; as previous hot, cold, or damp weather, deficient or bad diet, fatigue, grief, anxiety, &c. Being all similarly predisposed, it is not strange that if a number of people should fall into the same dis-

"If the opinion that this poison, like the other infections, is the result of an original unextinguished contagion, be correct, does it not point out a simple method of extinguishing it in this country, viz. by adopting measures similar to those of the strict quarantine, to which we are indebted for our present exemption from the horrors of the plague?" P. 27.

In what possible way, we ask, could the laws of quarantine be put in execution against mad dogs? Before they become mad we know nothing of the business, and afterward they generally run away.

ease, they should have it in the same way, whether mild or severe, in other words, that an *epidemic constitution* should prevail." 32.

The only remark we shall make on this explanation is—that as this prevailing constitution must have been produced by the physical agents around us, so it seems to matter little whether these agents modify the constitution, the contagion remaining the same—or modify the contagion, the constitution remaining the same. Is it not probable that both the contagion and the constitution are modified by the surrounding agents above mentioned? * We have no direct proof for or against either position.

Dr. Macmichael's observations on the contagion of typhus fever need not detain us. We do not see any thing new in them. We cannot agree with him in his opinion that "typhus fever does not now *originate* in any individual." As a proof of this Dr. M. brings forward two passages from Dr. Lind. The first was an *on dit* of the celebrated doctor. The surgeon of the Panther told him that during the prevalence of scurvy on board that ship the sick berth was dreadfully crowded, but that no contagious fever was generated. Such might be the case. We know that the great prevalence of one disease sometimes—indeed generally, precludes the appearance of others.

The converse of the above—viz. the proof of imported contagion is thus stated :—

"The company of the Loestoffe were in perfect health, during the eight months they were in America, and until a few days before their departure from Quebec. At that time six recovered marines came on board from *Point Levi* hospital, and in *forty-eight hours* afterward, among her company of two hundred people, *fifty* were seized with fevers and fluxes! In some the sickness began with a flux, in others with a fever; but the flux was generally moderate and gentle. The fever continued commonly from five to ten days; two patients were distressed with it for a whole month." 44.

We ask Dr. M. whether it coincides with his experience of typhus contagion, that it produces fever in forty-eight hours after exposure to it—and that when conveyed through the medium of recovered men? If so, it is contrary to our experience. The whole of Dr. Lind's statement is founded on that most fallacious kind of evidence—*post hoc ergo propter hoc*. If the six marines had not come on board 48

* This seems to have been the opinion of Dr. W. Heberden, who remarks, "That the presence of infectious matter is not alone sufficient to make the plague epidemical, but that some concurrent state of the air, and of the human body is likewise necessary."—*Increase and Decrease of Diseases*, p. 95.

hours before, the fevers and fluxes would have equally appeared. Their causes were longer in operation than two days; but it was far easier for the surgeon to place the whole to the account of the six marines, than to investigate the etiology of the fever and flux. We have seen enough of these short cuts to the origin of diseases to make us very indifferent to such *on dits* as the above tale of the Panther.

CHAP. III.—Scarlet Fever.

It is in this chapter that the jet of our author's essay comes out in form.

Scarlatina, Dr. M. observes, is so various in its character, and one form of it is so extremely mild, "*that it does most certainly pass through the system unobserved* ; and in many more instances under the name of a *rash*, exciting no alarm." The position which we have marked in italics is meant, we believe, *first*, to account for the number of people who think they have never had scarlatina ; and *secondly*, to take away the excuse for not putting children in the way of the contagion, from the vain hope of escaping the disease altogether. Our author, therefore, assumes that scarlatina is as general in affecting the human constitution as small-pox or measles—its non-perceptibility, in some of its forms, accounting for the immunity which some people *appear* to have possessed.* But in the first place, we fear, Dr. Macmichael can offer us no *proof* that those who have passed through life without the *ostensible* forms of scarlet fever must yet have had the *imperceptible* form of the disease. In the second place, can Dr. M. assure us that these imperceptible forms, or even the visible *rashes* will certainly secure us against the more dangerous forms of the disease ? We fear he cannot offer us any positive assurance on either of these points ; and if he cannot, we imagine that parents will be unwilling to expose their children to the disease, however mild it may be at the time. Again, can we be sure that because the epidemic is mild, generally, it will be equally so in individual cases ? We apprehend not. At least we have seen some children in the same family have the disease in the slightest manner, while others had it in the most terrible form, where the source of the contagion was the same in both cases.†

* "Adults," says Dr. Willan, "are not very susceptible of the contagion (of scarlatina.) Several physicians and apothecaries of London have never felt its effects, notwithstanding their attendance on many hundreds in the disease, often under the most unfavourable circumstances.—*On Cutaneous Diseases.*

† Willan, though he acknowledges that each epidemic has a reigning cha-

Notwithstanding the objections which we have stated, we are disposed to think that could Dr. Macmichael's proposal be put fully and universally into practice, there would be considerably less mortality and ill consequences from scarlatina than there now are—because there would be a *greater chance* of a mild disease in a favourable season and epidemic, than in contrary circumstances. But although this would be the general or average result, still as individual events would now and then be disastrous, people will never be persuaded to run the risk, lest they should happen to be the victims.*

In giving the following recapitulation in the author's own words, we take our leave of him with every sentiment of respect and esteem.

“To recapitulate the substance of the foregoing observations, I have to remark, that if they are founded in truth, and warranted by daily experience, we must come to the following conclusions.

“As the causes producing epidemic diseases are not very numerous, and are much subject to our own control, the means of lengthening the duration and increasing the comforts of life are to a great extent placed in our own hands.

“It has been seen that by a strict enforcement of the laws of quarantine, we have been able to banish the plague, and by the employment of vaccination, we have it in our power (if we choose to avail ourselves to the utmost of the benefits of that great discovery) to exterminate the small-pox; a contagion still more fatal than the plague itself. For the latter disease has never yet been known in India, China, North or South America, nor in the arctic or tropical regions; while the Small-pox has spared no nation, but has made its appearance in all seasons, and extended its ravages over every climate of the earth.

“Till we are happily enabled (and the hope ought not to be treated as wild and chimerical, for who would, a few years ago, have believed in the possibility of a discovery so beneficial as vaccination?) to extinguish the other contagions, we should watch the favourable types of these disorders, and court rather than avoid their

racter very generally conspicuous, yet he adduces as proof that the simple scarlatina, the *S. anginosa* and *S. maligna* all proceed from the same source, the following fact:—“because under the same roof, in large families, some individuals have the disease in one form, some in another, *about the same period*.”—*On Cutaneous Diseases*, p. 281. If this be the case, what security is there of having a mild disease at any one given time by exposure to the contagion?

* Sir Gilbert Blane, in his recently published select dissertations, states as follows:—“One attack of scarlet fever generally secures from a future one; but I know a case of a young lady who had it distinctly three times.” 210.

infection at such auspicious periods. For though it be true that some few persons pass through the vicissitudes of a long life, without ever catching the scarlet fever, such an occurrence is by no means common. I have endeavoured to show that its frequency has been, from carelessness and inattention, greatly overrated.

"The chance, therefore, of such an escape ought to have no weight in the calculations of prudence and sound reasoning, as in the course of their lives, it is probable that nine persons out of ten have undergone scarlet fever in various degrees and shades of violence, from the unnoticed rash to the virulent form of putrid sore throat.

"There is one other remark which occurs to me before I conclude, from which much practical benefit may occasionally be derived. Whenever it happens that a person infected with typhus fever, or any other contagious disease of a malignant character, is necessarily confined in a house occupied by a numerous family, he should be removed to the upper story. The current of heated air is naturally upwards, and the atmosphere loaded with the contagious steams, emanating from the patient's body, will (if he be in a lower apartment) diffuse themselves over the whole house, whereas, if he be placed above, they will have a ready and immediate vent." p. 100.

III.

Select Dissertations on several Subjects of Medical Science.

By Sir GILBERT BLANE, Bart. F.R.S. Physician to the King, &c. Now first collected, with Alterations and Additions; together with several new and original Papers. Octavo, pp. 398. London, Underwoods, Nov. 1822.

THESE Dissertations are twelve in number, of which eight are republications, (some of them with additions and alterations,) and four are now published for the first time. On calculating by the pages, the original articles occupy about 100, and the republications 286 pages. Every man has an undoubted right to collect together the fragments of his literary labours, and publish them as a whole; but we question the policy, in such cases, of interweaving new matter. Those who are already in possession of the original essays may consider it hard that they must repurchase eight essays out of twelve, or else be deprived of the other four. We think the better plan, both for the author and for the public, on such occasions, is to publish the old and the new essays separately, and thus suit the circumstances of all classes. This would have been peculiarly desirable in the present case, because

Sir Gilbert's character for science and erudition has rendered all his published essays very extensively known throughout the profession, and few will like to be deprived of the pleasure and instruction derivable from any thing new from the same pen. It is therefore, we repeat it, a great pity that he has imposed a penalty on the purchase of the new matter contained in the volume before us.

The first dissertation, on the comparative health of the navy from 1779 to 1814, was published, or the greater part of it, in the sixth volume of the *Medico-Chirurgical Transactions*. The second dissertation is a sequel or appendix to the former, being a memoir on the medical service of the fleet in the West Indies in the year 1782. Here we see the workings of human nature. As we advance in life we look back and cling to those transactions in which we took a part in youth. The memorable 12th of April, 1782, was an epoch which might well make the heart of an Englishman (especially if attached to the naval service) glow with pride, on recollection of that famous day. We are not therefore surprised to find Sir Gilbert, who stood the brunt of Count de Grasse's thunderbolts on the quarterdeck of the *Formidable*,* recall and recapitulate scenes and events that must have made a very vivid impression on the youthful mind. So far from censuring our veteran author for introducing some circumstances apparently calculated to gratify personal vanity, we are sorry he has not laid before us more of these auto-biographical sketches, which must be read with interest by all members of that profession to which Sir Gilbert Blane has always been an honour and an ornament.

Although the dissertation in question contains many observations that are very worthy of being read and reflected on by officers, civil, military, or medical, who are in any way concerned in the preservation of the lives of seamen or soldiers, yet in these "piping times of peace," we dare hardly dwell upon them, to the exclusion of matters that come home more immediately to the interests and occupa-

* By the way, we have no hesitation in questioning the propriety of Lord Rodney's conduct in permitting the physician of the fleet to station himself on the quarterdeck of the *Formidable*, during the action of the 12th April. It surely is defeating the intentions of Government and humanity to permit a medical officer to place himself in the same predicament of danger as a common sailor or marine, without any earthly advantage to be derived from the circumstance. Every other life can be easily replaced during action, except that of the medical officer, and no consideration should induce the latter to ask, or the commander to grant permission for this unnecessary exposure.—*Ed*

tions of the great bulk of our readers. The following little anecdote we shall extract as a specimen of French vivacity, under circumstances little calculated to give origin to sallies of wit.

"It is further observed, that this nation bears adversity with more equanimity than the English. An eminent example of this occurred to my own observation in the case of the Comte de Grasse, commander-in-chief of the French fleet, who was taken prisoner in the Ville de Paris. When he was conveyed on board of the Formidable the morning after the battle, the first conversation was carried on with Lord Rodney, through Sir Charles Douglas; for our Admiral had never learned to speak French; but Sir Charles being much engaged in the duties of the fleet, beckoned to me to replace him as interpreter, introducing me to him in the following facetious manner:—'*Permettez moi, mon Général, de vous présenter notre medecin en chef, qui est presque assez habile pour faire revivre les morts;*' to which the Comte, humouring the *plaisanterie*, answered, '*Et peut-être pour faire mourir les vivans.*' It fell to my lot chiefly to entertain him during the rest of the day, and his conversation partook of the like affability and good humour." 80.

There are some physiological observations in the succeeding page, where we fully agree in sentiment with the illustrious author. He observes, that, time immemorial, it has been the established practice in the British Navy to allow no other refreshment, during battle, than plain water. Long experience has confirmed the propriety of this practice—not only in battles, but in all violent exertions of the muscular, and excitement of the intellectual systems. In military combats both these are combined, and stimulants, whether vinous or spirituous, are injurious, as quickly exhausting the energy of the system, already too rapidly tending to that point. Even food is injurious; for the whole of the vital powers are now concentrated in the nervous and muscular systems, and the digestive organs are not in a state to perform their functions—or, if they are excited to action under the circumstances in question, there is a correspondent subduction of energy from the sensorial and muscular apparatus, where they are most required in the conflicts of war. Tea or coffee are the only refreshments that are at all desirable in the heat of battle or immediately after its termination. In the revolutionary war brandy was very generally exhibited to the French soldiery before coming to the charge. This, united with the natural impetuosity of the people, produced a super-human excitement, amounting almost to a temporary madness—but this state could not last long, and if cool intrepidity resisted the first shock of this physical fulmination, its triumph was cer-

tain. Many were the illustrations of this in the late contests between France and England!

The great improvement in the health of fleets and armies during the last thirty or forty years, but particularly during the last fifteen or twenty years, is truly surprising; and forms a theme of gratulation for every philanthropist. It is not less important also to the statesman; for in all former ages, there was no more common cause of failure in great armaments and expeditions than disease. Sir Richard Hawkins, an eminent commander and navigator in the reign of Queen Elizabeth, states that, in the course of twenty years, he had known of *ten thousand men* having perished by scurvy alone! This will appear prodigious, when we recollect that the navy was not then one twentieth part of what it was at the conclusion of the late war! The histories of Hosier, Vernon, and Anson will afford melancholy examples of the contrast to our present state of health and security on expeditions. The fatal Walcheren enterprise can hardly be brought up in opposition, because our troops there suffered from the local endemic, and not from the effects of sea voyages, or sea diseases.

"The late revolutionary war may be said to form a contrast with all preceding wars in point of health, and its unexampled glories are in no small degree imputable to this. And it is to be hoped that the methods of securing this invaluable blessing are now so rooted in the practical habits, experience, and convictions of naval officers of all descriptions; that those scenes of misery and disaster, which have been quoted from history, and which rend the heart in the narration, can never recur, should the nation ever again be involved in war; which, in the common course of human affairs, can hardly be doubted." 86.

The third dissertation is on the Walcheren expedition in 1809.* Sir Gilbert was sent there by Government in the autumn of the year above mentioned, and remained in Walcheren and Beveland a fortnight. We were present in this fatal expedition from beginning to end; and we can confirm the justice of Sir Gilbert's remarks as far as they extend. The shortness of his sojourn there prevented him from making a great many more observations, that would have occurred to a mind like his in respect to the etiology, pathology, and treatment of so fatal an endemic.

The fourth dissertation "on the comparative prevalence and mortality of different diseases in London," has been be-

* Published in the *Mélico-Chirurgical Transactions* for 1812.

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fore the public since the year 1813,* and is acknowledged to be a very able and interesting document. Our author states that in this republication "many new facts and illustrations are added." We have not time to collate the two editions in order to remark on these last; but the paper as it now stands is certainly very creditable to the learning and talents of this veteran physician.

The fifth dissertation is new, and forms a kind of appendix or sequel to the fourth; but it is almost exclusively politico-économical in its nature, and therefore it affords us few materials for analysis in a work that keeps so closely to matters purely medical, and more especially practical. By a table appended to this dissertation, and constructed by that accurate calculator Mr. Finlaison, late of the Admiralty, it would appear that within little more than one hundred years the value, or, in other words, the mean duration of human life has increased about ten years. Thus, the mean duration of life, at five years old, was calculated to be 41 years, in the year 1693; whereas, in the year 1789, it was calculated at 51 years. At the age of ten, it was enhanced from 38 to 48—at twenty, from 31 to 41—at thirty, from 27 to 36—at forty, from 22 to 29—at fifty, from 17 to 22—at sixty, from 12 to 15—at seventy, from 7 to 10.

If no fallacy have crept into the foregoing calculations, (and Sir Gilbert asserts that the conclusions are demonstrations themselves,) they may well excite our surprise and satisfaction.

"The causes," says our author, "appear chiefly referable to the more ample supply of food, clothing, and fuel; better habitations; improved habits of cleanliness and ventilation in persons and houses; greater sobriety, and improved medical practice. Whether these causes operate with a relative degree of effect corresponding to the order in which they here stand, or any other order, must be matter of opinion; but if health and long life are to be admitted as the surest criterions and constituent elements of human happiness, it would appear that we have much reason for self-congratulation in having had our lot cast in this age and country." 181.

The 6th dissertation is a republication from the second and third volumes of the transactions of a Society for the Improvement of Medical and Chirurgical Knowledge. The paper is in two parts, the *first* on the effect of large doses of the carbonates of potash in gravel, with remarks on the administration of opium: the *second*, on the use of pure alkalies and lime water in disorders of the stomach, bladder, and skin. To

* See Med. Chir. Transactions, vol. iv.

these dissertations Sir Gilbert has appended notes, and introduced remarks corresponding with our present state of knowledge on the subjects above mentioned.

An important addition to alkalies in calculous complaints, in Sir Gilbert's experience, is opium—a medicine that not only allayed pain and irritation, but “contributed materially to expedite and complete the cure.” He was induced to adopt this practice from finding that a medicine sold as a secret, “evidently consisting of alkali combined with opium, had, in some cases of gravel, been more effectual than the alkali directed by himself without this addition.”

“I have, therefore, for several years been in the habit of adding from seven to fifteen drops of *vinum opii* to each of the doses of the alkali, and am fully satisfied, that it not only prevents the distress arising from irritation, and facilitates the discharge of calculi, by relaxing the spasms of the ureters, but that it renders the cure more expeditious, more certain, and more permanent. In those constitutions which do not bear opium, hemlock has been found a useful substitute. I recollect hearing Dr. Black, in his *Lectures on Chemistry*, which I attended in the year 1770, in the University of Edinburgh, mention that hemlock was a remedy in gravel, but whether in his own experience or not, my memory does not serve me. Dr. Prout, in an ingenious and elaborate work on urinary concretions published last year, (1821,) says that *hyoscyamus* is eminently useful, particularly in those cases of concretions in which lithate of ammonia prevails.” 185.

Our author's experience corroborates that of others respecting the utility of opium in irritable and painful ulcers—especially in phagedenic buboes, and some cases of sloughing chancres. He justly remarks that as all healing processes are ultimately and essentially the work of Nature, so the means of art consist merely in enabling Nature to perform these processes, or remove those obstacles that impede her operations. Our chief obstacle is *irritation*. “Upon this principle it can as easily be conceived how the morbid action generating gravel may be increased by the irritation of the gravel itself, as that a sanious discharge should be kept up and increased by its own acrimony.” We have little doubt indeed that the action of most, if not all lithontriptics, is more functional than chemical—that they operate more through the medium of the digestive organs, than by chemically affecting the products of renal secretion. That chemical experiments out of the body are very fallacious, Sir Gilbert relates the following fact:—

“A gentleman, subject to frequent fits of gravel, was in the habit of making experiments on the small concretions which he passed. He found that soda dissolved these, but that potash did

not ; nevertheless, he experienced sensible relief, and even temporary cure, from the internal use of the latter, but no benefit from the former."* 188.

Our author prefers the potash to the soda in calculous complaints in general.

Among many judicious remarks on opium we find it stated by our author that he "has not seen it manifest any of its peculiar properties, whether local or general ; that is, any narcotic, anodyne, anti-spasmodic, or exhilarating effects, except when brought into contact with some portion of the alimentary canal." Surely Sir Gilbert cannot be serious here. We have seen both solid and liquid opium ease pain when externally applied, as often as we have hairs on our head, and we fancy there are few of our readers who have not seen the same. Has not every one seen the momentous effects of strong solution of opium, hyoscyamus, conium, &c. when applied in fomentation, where the hot water alone would have no adequate effect ? We refer also to Ward on opiate frictions for further illustration. For our author's observations on the use of alkalies and lime water in irritable bladder, indigestion, and cutaneous affections, we must refer to the work itself, or to the volumes of *Transactions* already quoted.

The 7th dissertation is on infection or contagion ; and though an original article in the volume, it would be unreasonable to expect much originality on a subject which has been completely exhausted—we are sorry to say without fixed conclusions being come to on many important points. As this section is almost entirely ratiocinative and historical, we could give no fair account of it, and must therefore pass it by. On the great majority of doctrinal points we agree with the learned author—and for the rest we leave them to future tribunals for determination.

The 8th dissertation is on muscular motion, delivered as the Croonian lecture thirty-four years ago. It is too well known to require notice in this place. There are many notes, however, appended, and considerable additions made to the original lecture.

The 9th dissertation is on the yellow fever ; but as "the greater part of this dissertation will be found in the first edition of *Medical Logic*," and as the subject was taken into consideration rather fully in the sixth number of our

* A remarkable instance of the inefficacy of soda, though given in a large quantity, is related in Mr. Home's *Observations on Mr. Brande's Paper on the Structure of Calculi*, inserted in the *Philosophical Transactions* for 1808.

Quarterly Series for October, 1819, we do not deem it necessary to renew the discussion here. We certainly were not a little surprised to see Sir Gilbert offer as a reason for omitting the greater part of the yellow fever discussion in the *second* edition of his *Medical Logic*, a belief that the question was now decided, and that all parties had come to the creed of contagion! The parties, we apprehend, have rather too much of "opposition stuff" in their compositions to be thus so suddenly blended and neutralized, even by the *Logic* of the worthy Baronet. This he now finds, and like a veteran warrior he returns to the charge, acknowledging that he had calculated without his host in supposing the enemy vanquished.* The following passage may perhaps show that Sir Gilbert is not very far, after all, from enrolling himself with the small band of "contingent contagionists," among whom we have always numbered ourselves.

"From my own observation in the islands, from the year 1780 to 1783, I had not much opportunity of seeing it in its worst forms. The navy as well as the army, and civil population, were more than ordinarily exempt from it in these years, insomuch, that I saw more cases of what is popularly called the *Yellow Fever*, which were not of an infectious nature, than of those which were so. I saw enough, however, in the hospital at Barbadoes, and in the ships and hospital at Jamaica, to convince me of its contagious nature in certain circumstances; and from the best consideration I have since been able to give this subject, I remain persuaded that whenever it is so aggravated as to appear in an epidemic and pestilential form it is truly contagious." 285.

We shall not make more than one or two remarks on this subject. Sir Gilbert allows that he had very few opportunities of seeing the disease in its worst forms, and that in the *majority* of cases which came under his notice the disease was *not* contagious. Now in the majority of cases the fever must have arisen from some cause or causes in the earth or air, for contagion he puts out of the question: and if so we ask Sir Gilbert, and every unprejudiced man, why it should not arise from similar causes on a large as well as on a small scale? Why, we ask, is the fever *necessarily* contagious, because a thousand happen to be stricken with it in a day, in various and distant parts of a city or district, instead of a hundred, or fifty, or ten? The logic by which we come to such a conclusion may be medical logic, but assuredly it is bad logic.

* "I was then (in the second edition) under the belief that the opinion of non-contagion had been nearly eradicated, but finding this not to be the case, I have deemed it my indispensable duty. &c." P. 285.

In the absence of demonstrable proof, we should be more inclined to come to the opposite conclusion, namely, that where there are only a *few* cases of the fever, it might arise from contagion in the form of fomites; but where a whole people are suddenly assailed, that the cause was a general one conveyed through the air, or springing from the soil. That, in the latter case, (epidemic) an additional source of the disease is occasionally formed by filth, crowding, and want of ventilation, in the form of contagion, we readily admit, and firmly believe; but that the fever should *necessarily* be contagious because it is epidemic, is a creed to which we cannot subscribe. It is like too many creeds in this world—the offspring of credulity or prejudice. We are sorry to observe that even a Sir Gilbert Blane is not free from something approaching illiberality, when his darling doctrine of contagion is in question. Thus, in alluding to a very excellent article on yellow fever in the ninth volume of the *Medico-Chirurgical Transactions*, our author makes use of the following language:—

“The shallow and perverted reasoning of this and some other authors, would not have claimed notice, but as what they give to the world may prove mischievous, by some inexperienced or weak practitioner, applying what is advanced by them, to the pestilential epidemic fever, it becomes the peculiar duty of one, who has been forty years in the medical service of the state, to counteract the baneful impression it may make; and as no example more apt could be selected to illustrate the necessity of verbal precision and discrimination in medical reasoning.” 290.

Of these forty years spent in the service of the State, we apprehend that little less than thirty-six were passed in London. Our author was about three years in the West Indies, at a period of unusual salubrity, and where he had, on his own showing, very little experience of yellow fever. We do not suppose that Sir Gilbert will quote the time during which he was a medical commissioner at Somerset Place, as particularly fraught with opportunity of observing yellow fever, and therefore we cannot but regard this *forty years' experience* as a knock-down argument very much beneath the dignity of science, and very unfortunately chosen, when the extremely limited sphere of observation of our author is made known. In fine, we cannot help making the remark that, in our humble opinion, Sir Gilbert's knowledge of yellow fever is very scanty, and his opinions very prejudiced.

If our author complains of this language, let him compare it with his own in the extract just quoted. We appeal to himself which of the two is the more severe. We are sorry to be obliged to express ourselves with any thing like warmth upon this occasion; but we too have a duty to perform, as

well as Sir Gilbert, and the public will probably give us credit for being equally as anxious as he is to establish truth, and "counteract baneful impressions."

Sir Gilbert cannot accuse us of being exclusive non-contagionists. We have, ever since we were capable of forming a judgment on the subject, considered the exclusive contagionists and non-contagionists as equally in error. Diseases and their causes are not so simple and uniform as either party represent them. Fevers will arise from *general* causes, and they will be propagated afterward by *local* ones:—in other words, fevers, endemic or epidemic in their origin, will become contagious in their course—and thus keep up the ball of contention among the *ultras* of both parties. It is these last, by the way, who chiefly come before the public in brawling controversies. We are convinced that the great body of practitioners, who write little on the subject, are of the moderate way of thinking, and view the question in pretty much the same light as we do.

As our author admits that his practical knowledge of yellow fever is very limited, he makes but two therapeutical remarks, and these we shall give in his own words.

"The first he will mention is, that he has some reason to believe that a course of mercury, previous to entering the Carribean station, has the effect of removing, or at least of lessening the susceptibility to the yellow fever. The chief fact upon which he founds this, is what occurred in one of the ships of war which arrived in the West Indies towards the end of the American war, in which a great proportion of the crew had been under a course of mercury on the passage; and it was remarked that after these men arrived and were exposed to the same cause of sickness as the others, they were the only persons who escaped the fever of the climate. It would appear, that the mercury had reduced their constitution to the standard of the coloured and Creole inhabitants, and of the seasoned Europeans. The author has no experience of his own on this subject, and leaves it to others to pay such regard to it as their own judgment may dictate.

"The other remark he has to make, respects certain violent methods of practice which have been followed, even at a very late period, in the tropical fevers. He alludes particularly to the severe depletory remedies of bleeding and purging, especially the former, which have been employed without that discriminating judgment which is indispensable in all sound practice. His attention has been very strongly drawn to this subject, by lately reading the detail of a most afflicting case of a young naval commander, on the West India station. He was seized a few weeks after his arrival with a continued fever, the symptoms of which were by no means violent or alarming, nor was he of an athletic frame. The practice followed was that of bleeding every day, from one to two pounds for the

first four days of his illness, and two pounds two days before his death, which happened on the sixth day. The whole quantity of blood abstracted amounted to a gallon. He was also repeatedly and severely purged with salts and calomel. This is the revival of a practice, which had been tried and abandoned on account of its want of success, at the beginning of the great epidemic in 1793. The author does not mean here to explode depletory remedies in all cases; on the contrary, he is well assured, from his own experience, and that of others, that a single bleeding in the first day, or at farthest the second day of attack, may be highly useful in the case of strong plethoric subjects newly arrived from Europe. It is to be lamented, that the most cautious and judicious employment of remedies have not made any sensible difference in the general rate of mortality in this most malignant disorder; but it is truly humiliating to reflect, that it should be increased by rash and undistinguishing practitioners. Will the junior members of the Medical Service of the Navy forgive a veteran in that department, who has zealously devoted to it a large portion of a long life, for warning and imploring them not to give lightly into such outrageous and indiscriminate practices, as they regard the sufferings and value the lives of their fellow-men who are intrusted to their care: not to mention what is above all price in the estimation of every good man—peace of mind, and a clear conscience.” 333.

To a certain extent we agree with Sir Gilbert in condemning the indiscriminate, and still more the *reiterated and protracted* bleedings which have been resorted to in yellow fever, as if it was a mere topical *inflammation*, for which the lancet must *continue* to be used as long as the symptoms remain. We are advocates for liberal depletion at the very onset of the disease, where the reaction is violent; but we deprecate a perseverance in sanguineous evacuations beyond the first or second day.

The 10th dissertation is on vaccination, published in the *Medico-Chirurgical Transactions* for the year 1819. It has also been reprinted, with some additions, in the year 1820, by the desire and at the expense of the venerable discoverer of this invaluable preventive of variola. It would be needless for us to farther notice a paper so widely circulated and so favourably known among the profession.

The 11th dissertation contains the narration of a hurricane in the West Indies. This is not noticed as a re-publication by Sir Gilbert; but we suspect that it has before appeared in print; as it is in the form of a letter from Sir Gilbert to Dr. William Hunter, dated December 22d, 1780. Probably it was only published in some of the ephemerals of the day, and is now rescued from oblivion by its parent.* These

* This is very natural. As age advances, we look back with mellowed

awful *extravaganzas* of Nature have but little connexion with medical science; and with a journal of practical medicine still less. The following extract contains all the strictly medical part of this dissertation.

“The influence of this general tumult of nature upon the health of man is none of the least curious of its effects. I have made much inquiry upon this head, not only at the medical Superintendents of the Naval and Military Hospitals, and the physicians of the place, but at private persons; and I find, that so far from its having been productive of sickness, there has been less of it since, and even that most of those who laboured under disease at the time benefitted by it, except the very old and delicate, who suffered from mechanical violence, or the subsequent want of shelter. This is a fact so paradoxical, that if I had not a concurrence of testimony, and in some degree my own observation, I could neither credit, nor would venture to relate it. It had a visibly good effect on the diseases of the country; fevers, fluxes, and chronic diarrhœas the consequence of dysenteries, were also cured by it. But the diseases upon which it operated most visibly and sensibly were pulmonic complaints. Some cases, supposed to be beginning consumptions, and even the acute state of pleurisy, were cured by it. In the more advanced and incurable state, the hectic fever was in a great measure removed, and a temporary alleviation at least procured. A delicate lady, of my acquaintance, was ill of a pleurisy at the time, and passed more than ten hours in the open air, sitting generally in a plash of water, from the rain that fell; she had no more of her complaint, nor any return of it; and I saw her a few weeks after, in better looks and general health than she had enjoyed for a great while before. It was a general observation, that people had remarkably keen appetites for several days after, and a number of those whom I knew, formerly thin and sallow, looked fresh and plump a few weeks after, though the unhealthy rainy season was then hardly over.” 370.

Sir Gilbert justly suspects that the agitation of mind, consequent on such a tremendous conflict of the elements, must have played its part, not only in averting the effects naturally to be expected from exposure to the cold and rain, but in removing many physical ailments previously existing. “Neither is it ridiculous to suppose that the purity and coolness of the air would have a happy effect on the animal frame,

pleasure on all the prominent events of that period of our existence when “life itself was new;” and therefore it is no wonder that we should feel a secret gratification in recounting our dangers, recalling to mind our associates, and reviewing our personal histories.

Should auld adventures be forgot,
And never brought to mind;—
Should auld acquaintance be forgot,
And days of Lang Syne!

especially as the diseases of the lungs were most benefitted by it."

We could perhaps criticise some of Sir Gilbert's positions while attempting to explain the nature and cause of hurricanes; but as it would be wandering from our regular course, we shall only allude to one topic, which is connected with chymical science. "It is ascertained by experiment, (says our author,) that the rays of the sun are not essentially hot, but produce heat by their action on opaque bodies, by repeated refraction in passing through pellucid bodies of different specific gravities." We believe that Dr. Hutton first noticed and Dr. Herschel confirmed the fact, that certain rays of the sun are Calorifers as well as Lucifers; or to use Mr. Brande's words—"it is evident, therefore, that, independent of the illuminating rays, there are others which produce increase of temperature, &c." It is proved, from the place which these calorific rays occupy, after passing through the prism, that they are possessed of less refrangibility than the visible rays of light.* In other respects Sir Gilbert's narrative of this destructive hurricane is blended with much scientific matter, and is indicative of a mind imbued with natural knowledge and strong sense.

The last dissertation in this volume is a short paper on the effects of mechanical compression of the head, as a preventive and cure in certain cases of hydrocephalus, published in our respected cotemporary, the Medical and Physical Journal. We noticed this paper in page 669 of the first volume of this series. Notwithstanding that one or two cases have since been communicated to our author, seeming to corroborate his ideas on this subject, we adhere to the opinion we then delivered, that the principle of external pressure can rarely, if ever, be applicable to the cure of hydrocephalus internus. It is the effect of *pressure* that we have most to dread in all effusions, whether of blood or water within the cavities or investments of the brain, and therefore external pressure, we venture to predict, will be found to aggravate the complaint, *wherever its effects can be unequivocally ascertained*. In Sir Gilbert's own case, leeches and purgatives were used at the same time, and the pressure, *on a child's head*, was so slight as to occasion *no pain or uneasiness*. Under such circumstances, it is almost needless to say that no positive indication could be drawn respecting the separate effects of the bandage.

We have now closed the volume, and have to regret that,

* See Thomson's Annals, vol. ii. p. 163.

from the great proportion of republished matter, and the nature of the few original articles it contains, we have been able to replenish but a small corner of our Journal with its contents. We regret this the more, because, from the course of Nature, we cannot expect that our venerable and highly estimable author will break in much more upon the ease so congenial to old age, by toiling in the literary advancement of his profession. He has already left many honourable and distinguishing marks of an active intellect, and a long and useful life. Let him be contented with these; nor, in future, entangle himself in the labyrinths of medical controversy, where he has little to gain and much to lose. Many of his juvenile opponents are in just the reverse circumstances. They have every thing to gain, (in the way of notoriety) and very little to lose, by the greatest defeat. In plain matters of fact, and in the dignified walks of science, we shall always hail with pleasure the appearance of Sir Gilbert Blane.

IV.

Practical Observations on Distortions of the Spine, Chest, and Limbs; together with Remarks on Paralytic and other Diseases connected with impaired or defective Motion. By WILLIAM TILLEARD WARD, F.L.S. Fellow of the Royal College of Surgeons; of the Medico-Chirurgical Society; and of the Medical Society of London. 8vo. pp. 168. London, November, 1822.

THAT distortions are among the fruits of civilized life, sedentary habits, and indulgence of the appetites and passions, cannot be disputed; for few are the deformities observable among those people who are more nearly in a state of nature. This exemption from many diseases of civilized life seems considerably owing to the bodily labour imposed on them by their natural habits and wants; and the importance of muscular exercise in the preservation of health, has been observed from the remotest antiquity. Nor can we wonder at it. The muscles of the human body outweigh all the other parts, bones, viscera, membranes, and skin, put together. The state of the muscular system is not only influenced by the state of the nervous, vascular, respiratory, and other functions, but powerfully influences them in turn. How much the muscles are influenced by the nerves and blood-vessels, is well known to every person. They owe all their energy and ac-

tivity to these; and, the moment they are thrown into action, they react upon the sensorium and heart, through the intervention of the nerves and blood-vessels. Muscular exercise, therefore, proves an active stimulus, or excitement to the nervous and vascular systems, and, through them, to the whole of the viscera. The muscles themselves are strengthened by exercise, contrary to all the laws of mechanics in dead machines, and the whole animal economy soon participates in the muscular energy. But it is not merely by the muscular contractions that this excitement is conveyed to the other parts of the system—muscular motion produces a constant succession of *shocks or succussions* throughout the system, that operate not a little in exciting the various functions. This may not be much perceived in a state of health; but, let a febrile or inflammatory condition occur in the whole or part of the frame, and then we see the unequivocal and pernicious effects of muscular action, and *vice versa*. It is fortunate for many, who are deprived of active muscular exertion, that these shocks or succussions result, also, from passive exercise in carriages or on horseback, and thus their health is preserved.

Mr. Ward acknowledges, that the treatment which he here recommends for incurvations of the spine, was first suggested to him by the perusal of a Treatise on Muscular Motion, by Mr. Pugh; and that the principles have been lately laid down by Mr. Wilson. The particular mode advised by Mr. Wilson (carrying a weight on the head) appears, he thinks, better adapted to the slighter cases of curvature, than to those of great extent or long duration, and may be resorted to as an auxiliary measure, when the spine has nearly recovered its original shape, in order to establish a permanent cure.

Here our author takes occasion to hint his opinion, that many cases of incipient consumption may be connected with that deformity of the chest, in children, commonly called "chicken breast," and proposes the remedy hereafter to be described, (muscular exertion) for the removal of the predisposition.

We must pass over Mr. Ward's first chapter, on the "Influence of Muscular Exercise on the Body," as it consists principally of physiological truths and speculations, which are pretty generally known. We shall, however, give the inferences which he draws, after a full consideration of all the data.

"That the comparative power of muscular parts depends,

"1. On the state of the functions of respiration and circulation, and that increased strength is a consequence of increased vascularity, and circulation of blood in the part, and *vice versa*, a want of tone and power, of a deficient supply of it.

"2. Of the degree of exercise or frequency with which they are called into action.

"3. On the mental energy or power of volition exerted on them.

"4. That the most effectual means of increasing muscular strength is by frequent exercise of the power itself, and, consequently, the preservation of the healthy actions of those functions by which it is influenced.

"5. That the muscular parts have a constant tendency to contract, by which they adapt themselves to the state of the limb or parts to which they are attached." 15.

CHAP. II.—*Curved Spine.* The disease to which our author here confines his attention, does not, he says, affect the bony substance of the vertebræ, (this last being a disease from which he endeavours to distinguish the one now under consideration,) but is confined to the parts connecting them, "and is, in its consequences, no less injurious to the general health, and happiness of the individual." He defines it "an alteration in the natural form of the spinal column, without caries of its bony structure."

The appearances which our author has met with on dissection, are the following:—the intervertebral substance is generally thinner than natural, but much more on the concave than on the convex side of the curve. In some cases, it has not exceeded more than a third part of its natural thickness. The transversales muscles, inserted into the spinous processes, are elongated, and much finer and smaller on the convex, than on the concave, side of the curve, where they are shorter and fuller. This state is accurately described by Bichat, in his *Descriptive Anatomy*. "Dans les deviations diverses de l'épine, les muscles suivent la disposition osseuse; ils s'allongent du côté de la convexité, se raccourcissent et se renflent du côté de la concavité. Les faisceaux divers du transversaire épineux m'ont présenté surtout cette disposition." In both instances, the muscles are more pallid than usual; the ligaments, also, are not so strong as in a healthy subject.

This disorder, our author thinks, is on the increase, particularly among females in the opulent classes of society—"a circumstance which, perhaps, may be attributed to the present mode of education, in which greater attention is paid, than formerly, to the cultivation of the mind, and to female accomplishments, and less time, consequently, allowed for the bodily exercise necessary for the preservation of health." The errors of diet, and the mismanagements during lactation, are, also, to be taken into account.

If the incurvation of the spine take place after six or seven years of age, it appears to him, that a want of proper exercise may be deemed the chief cause.

The opinions generally entertained upon the subject of distorted spine appear to have been, that it has always had its origin in caries of the vertebræ, or in a morbid state of the bone tending to it. Prior, however, to the occurrence of any alteration in the position of the spinal column, except in those cases where it arises from local injury, we find that there is a considerable decrease of muscular power, and a sense of great general lassitude and weariness: the least bodily exertion induces great fatigue, and the patient, even if permitted, is not inclined to indulge in the sports common to childhood; there is generally derangement of the digestive organs, and an uneasiness which is referred to different parts of the spine. As no particular spot can be pointed out as the seat of disease, these symptoms perhaps are overlooked, till, from the general causes of debility, some part of the muscular structure becomes unable to support the spine in the erect position, and it yields; this perhaps may, in some instances, give rise to unnatural pressure on the parts, and consequently inflammation of the ligaments, absorption of the intervertebral cartilages and caries of the bone; but, that very considerable distortion of the spine, both laterally and anteriorly, may exist for years without such effects being produced, I have had sufficient demonstration, both from the instances of restoration which I have witnessed, and from inspection of the parts in the dead subject." 25.

The *firmness* of cartilage will generally be found in proportion to the *strength* of the muscles. From a number of experiments made by Mr. Wasse, (Philosoph. Trans. vol. xxxiii.) it was ascertained, that there is nearly an inch difference between the height of a body on first rising in the morning, and in the evening. The same writer makes this remark: all the difference I find between labourers and sedentary people is, that the former are longer in losing their morning height, and sink rather less than the latter."

The greater strength of the intervertebral substance in persons advanced in life, may be assigned as the cause of their exemption from this disorder; Pott having remarked that he had "never seen it at an age beyond forty." Our author thinks, that sufficient importance has not been attached to the influence of the cartilages and ligaments in the production of this disorder. Their relaxation or firmness—increase or decrease of size—power or weakness, will be commensurate with the tone and vigour of the muscular structure. The diminished strength of the ligaments and cartilages is a sequel of muscular debility; and, therefore, by giving power to the muscles, an accession of strength is given to the ligaments and intervertebral substance.

"That to muscular debility we may ascribe the first occurrence of the disease, is confirmed by the method of cure, which, however, it may differ as to the particular mode of conducting it, is founded on the principle of giving increased action to those muscles of the

spine which have been weakened and extended, and thereby equalising their contractile power with that of their antagonists." 31.

Our author thinks, that spinal distortion, arising from muscular debility, may be distinguished from disease of a bony structure, not only by the mode of its termination, but by the history of the complaint. We shall allow the author to attempt the distinction in his own words.

"In the lateral distortion, the incurvation is commonly gradual and not sudden, and if it occur in the cervical vertebræ there is a second or third curve from the action of the muscles of the spine necessary to preserve the centre of gravity; it is not attended with acute pain, but merely a sense of uneasiness, which may, perhaps, be referred to the fatigue of the muscles connected with the spine. In several cases of long standing that have fallen under my own observation, the patient has never been sensible of any pain or uneasiness in the spinal column or its vicinity, and, except from the alteration in shape, would have been totally unconscious of the approach of the disorder. The length of time which it is in forming is also various, sometimes its progress is slow and insidious, occupying a period of one, two, or three, and in some instances six or seven years or more. Its approaches are for a long time scarcely perceptible, but on the occurrence of any particular disturbance to the constitution, such as febrile indisposition, the spine in the course of one, two, or three months, is found to yield in a greater degree than it had previously done, during as many years.

In the anterior curvature of the spine the curve will also be found very gradual, as it comprehends several of the lower cervical, and the whole of the dorsal and lumbar vertebræ; in some instances it is formed by the dorsal and lumbar only; in these cases likewise the pain is of an obtuse kind, which may probably be referred to the same cause.

"In caries of the bodies of the vertebræ there is a sudden projection of the part; the relative position of the spinous processes is altered, and they are occasionally separated to a greater distance than could be imagined, without a loss of substance anteriorly; in other instances they only approximate more nearly to each other.* The incurvation from within outwards is occasioned by the absorption of the bodies of one or more of the vertebræ. The circumstance of the disease having been preceded by a blow, is, with others, a fair ground for suspicion of caries. The pain, previously to any incurvation taking place from disease of the bone, is more acute than in that arising from weakness, as might be expected from the manner in which

* "Mr. Copeland relates a case in which the intervertebral substance was removed, and the dorsal vertebræ ankylosed, without there having been any elevation of the bent spinous processes, or distortion of the form of the spine; this case however must be deemed of rare occurrence.—*Copeland's. Observations on the Spine*, p. 15."

inflammation proceeds in parts of a ligamentous, cartilaginous, or bony texture, and is more confined to the diseased part, and attended with greater febrile indisposition." 36.

Our author considers it a matter of great importance, to distinguish the disease of which he treats from that produced by caries and rickets, "as it is evident, that where any alteration of structure has taken place in the bodies of the vertebræ from the *former*, or where there is a scrofulous disease in the parts, any attempts to cure the distortion by muscular exercise would, by preventing the natural cure by ankylosis, be highly injurious.

Treatment.—On the first invasion of the disorder, the digestive organs ought to be strictly attended to—the diet should consist of plain animal food once a day, "of which the patient ought to be allowed to eat heartily"—bread and butter, or bread and milk, or tea, for the other meals—passive and active exercise of the spinal and other muscles, as friction, shampooing, percussion, horizontal position, galvanism, &c.—and as active, the excitement of the muscles by volition, or general muscular exercise. These various methods of exciting the warmth of the parts, and promoting a greater flow of blood to them, differ as to effect, only in degree. Their choice and application must be left to the discretion of the practitioner, and they must be regulated by the sensibility of the parts and the state of the disease. The gentler means should be used at first. Shampooing and percussion possess some advantages over friction. These means should be employed for not less than an hour at a time, and repeated twice or thrice in the twenty-four hours—never carrying them the length of exciting pain. As to position, in the anterior curvature of the spine, our author prefers recumbency on the back, although he does not consider it absolutely indispensable. He merely recommends it to be pursued to such an extent as not to be productive of inconvenience to the patient.

"In the lateral incurvation the confinement to a general horizontal posture is all that is requisite, without restricting the patient to any particular position." 43.

The recumbent position, by taking off the superincumbent weight, and thus enabling the parts to regain their former healthy condition, is, our author acknowledges, "a measure of essential importance" in the treatment; and, in many slight cases, may alone be sufficient; but, he thinks, it ought not to be relied on exclusively. When the spine has thus recovered its proper station, the muscles attached to it, and which are

its principal support, are left in an atonic state, and incapable of executing their functions. It is obvious that the best means of giving permanency to the cure, and of preventing a recurrence of the disorder, is by giving additional tone and strength to the muscles in question.

"One of the methods that I employ for this purpose and the detail of which will place the subject in the clearest point of view, is the following—a weight appended to a cord is passed over a pulley, and the other extremity, having a strap attached to it, is fastened round the patient's head; the pelvis being fixed, the patient is directed to raise the weight by drawing the head and trunk backwards, and to repeat this effort until fatigue is produced. The frequency of repetition of this exercise of the muscles, and the weight of the body to be raised, must, of course, depend on the patient's strength. After each effort, it is advisable to take rest, by lying down on a couch or sofa, in order that the muscles may not be placed on the stretch, and thus prevented from recovering themselves. This mode of exercising the muscles is equally applicable to the anterior curvature of the spine, as to those which take place laterally." 44.

Our author advises a combination of the different means enumerated, as being more efficacious than any one measure however strenuously pursued. He has observed that when the recumbent posture was trusted to alone, a great degree of dyspepsia was often induced, a circumstance that did not occur when action and rest were alternated, which strengthened the digestion as well as the muscular system.

Mr. Ward is no advocate for any mechanical contrivance in correcting the spinal distortion, as he coincides with Mr. Wilson in believing that they injure the bones of the pelvis on which they are made to rest. Seven cases are related illustrative of the *methodus medendi* above detailed. For these cases we must refer to the work itself.

The second chapter is on Deformity of the Chest. As the bones forming the thorax derive their support from the spinal column, any incurvation of this part will necessarily be accompanied by a corresponding displacement of the ribs and sternum, and the removal of the spinal distortion will usually be followed by an improvement in the form of the chest. But thoracic deformity is not unfrequently found to exist without any derangement of the spine. The general appearance of the chest, in these cases, has procured for it the term *chicken-breast*.

"It is marked by an apparent projection of the sternum, which seems rather to arise from a loss of the arched form, and a flattening of the ribs on each side, than from any unnatural protuberance of the bone itself. Sometimes there is a falling in of the breast bone, producing a preternatural hollow instead of projection of this part of the

chest, in which case the edges of the false ribs are frequently turned in upon the lungs, and the ensiform cartilage can scarcely be felt, and not unfrequently one side of the breast is flattened, while there is a corresponding swelling of the opposite side.

"In weakly and delicate children also, independently of any distortion, there is a greater length of chest from the first to the lowest false rib than in the natural state; the clavicles project forwards, as well as the points of the shoulders, and there is not that depth or capacity of chest from the sternum to the spine, which may be observed in perfectly healthy individuals; this is particularly apparent when the patient is viewed sideways." 69.

The diminished capacity of the chest is productive of various complaints, as palpitations, dyspnoea, and pulmonic affections. In the treatment our author relies principally on the local means before detailed, with proper attention to diet and the general state of the constitution.

"The method which I have employed with regard to the local means in those cases, where the spine has been exempt from disease, has been that of placing the intercostal muscles and those connected with the anterior part of the chest on the stretch, by placing the patient in a standing position, with the back against a cylindrical piece of wood and the arms extended backwards. By this means an extension of the pectoral muscles is produced, and they are thus brought into full action upon the ribs as well as the muscles of the abdomen which are opponents to them. The position, as well as the condition of the muscles, may be imagined by that of a person in the act of attempting to throw a somerset backwards. While the patient is in this situation, he is desired to take deep inspirations. I direct manipulation, and afterward percussion, to be employed for one or two hours during the day, gradually increasing them in force according to the influence produced on the patient.

"In addition to these means, I usually direct the patient to suspend the body by the arms, and similar modes of exercise, with a view to promote the full action of the pectorales, serrati magni, and postici muscles, &c. on the ribs, to produce the greatest possible extent of elevation of the ribs and sternum, and consequent expansion of the chest." 76.

The 4th Chapter is on Contractions of the Limbs. Our author is inclined to view these affections as depending rather on weakness in the extensors than in rigidity or contraction of the flexors of the part bent. The cases of distortion, our author remarks, in which the motion of the limb is not entirely lost, arise generally from inflammation of the joint connected with some internal disorder of the frame, as rheumatism, gout, &c. occasioning deposition of coagulable lymph, or the formation of concretions—at other times, collections of fluid within the cavity of the joint, or abrasion of the cartilages. To these causes may be added spasmodic or para-

lytic affections, bruises, and other injuries of the muscles, &c. In all these cases, our author thinks, it will be found, upon careful examination, that the muscles of the limb are wasted and flaccid, having almost entirely lost the power of moving the limb from long-continued inaction. The limb is usually bent on the side on which the largest and most powerful muscles are situated. Mr. Ward selects the knee joint for the subject of his observations. It is not easy sometimes to distinguish between complete ankylosis, and a stiffening short of that process, where art may be productive of some benefit. Where inflammation has been so severe and protracted as to produce erosion of the cartilage and a union of the articulating extremities of the bones, it will generally be found, on inquiry, that the pain has been of a very severe and insupportable kind, attended with much watchfulness, the seat of the pain being referred to that part which is immediately under the patella—that the disorder has continued without any diminution of swelling or remission of pain, accompanied with a grating sensation on the slightest motion of the limb—and lastly, that the pain had for some time preceded any appearance of external swelling, the growth of which had been gradual and uninterrupted.

“ In those cases where there has been considerable inflammation of the parts, depositions of coagulable lymph, fluid, or gouty concretions in the joint, I think it better to trust their absorption to the influence of gentle exercise of the limb, rather than by the employment of friction, manipulation, or percussion on the joint itself, to incur the risk of the injurious consequences likely to result from the application of local stimulus to parts which, from previous disease, are more liable to the recurrence of inflammatory action. As this use of friction also to the joint itself is commonly attended with some degree of soreness and stiffness of the part on its first application, a circumstance which might mislead the practitioner, and induce him to ascribe it to the effect of disease, I think it better in the first instance to direct friction, manipulation, or percussion to be applied over the extensor muscles of the thigh only. If the angle at which the tibia is fixed on the femur be acute, the patient being placed sitting on a high chair, a line passing over a pulley is affixed to the heel with a small weight attached to it, and he is desired to pull it steadily forwards, and continue to repeat the efforts till fatigue is induced. The first attempts should be continued only for a short time, and in proportion to the increased strength of the extensor muscles; the weight, as well as the length of time occupied in the exercise of the limb, should be gradually augmented. When by a steady perseverance in these means considerable motion has been gained, and sufficient strength acquired to allow the patient to bear his whole weight on the affected limb, a further plan may be adopted of extending the flexor muscles by placing the foot on an inclined

plane (which may be made by attaching two pieces of flat board, about one foot and a half in length, and a foot in breadth, to each other, so that when placed on the floor a triangle will be formed, the base of which is the ground, the point of attachment the apex,) the heel resting on the ground, and the toe towards the upper part. In this position, the patient should stand on the affected leg only, holding by the back of a chair, so that by advancing the body forwards, or receding, the flexor muscles of the leg may be proportionally extended. This exercise should be persevered in as long as it can be borne without excessive fatigue, and repeated at intervals during the day." 104.

For the cases in illustration, we must refer to the work itself.

The 5th chapter is on Paralysis, of which our author presents a pathological and etiological sketch. With the treatment of recent paralytic and apoplectic attacks we need not meddle here, as we have more than once entered pretty deeply into that subject. It is with the chronic effects of the paralysis, the loss or diminution of muscular power, that our business now is. Muscular *exertion* is recommended by our author as the surest means of restoring muscular *power*. It is on this principle he explains the reason why hemiplegiac patients generally recover the use of the *lower* before that of the upper extremities, in consequence of making earlier and more persevering efforts to walk than to work. Friction with the hand, and percussion, appear to have a local effect on the nerves distributed upon the muscles, by increasing their energy, as well as inducing a greater sanguiferous circulation and corresponding increase of strength. "These stimuli I consider inferior in their effect to that excitement produced by the act of volition."

"I have usually advised that the patient should observe a recumbent position, and in that posture make use of muscular exertion, till a considerable degree of strength was acquired.

"It has been remarked by patients who have suffered much from the spasmodic twitchings and pains in the night, described by Pott,* that on using considerable muscular exertion, or frequently attempting it, and repeating it at intervals during the day-time, the pains and cramps either did not occur, or were lessened. To effect this object it appeared to be necessary to induce complete fatigue." 135.

Chap. VI. Chorea Sancti Viti, our author is induced to consider "as a modification of hemiplegia occurring in a young subject." In this we cannot bring ourselves to agree with Mr. Ward. The two principal modes of treatment that

* "Farther remarks on the useless state of the lower limbs, &c."

have been found most successful, viz. purgatives and tonics, do not seem in accordance with Mr. Ward's theory. That it is an affection of the nervous system we have no doubt; but the nature of its cause we cannot but think to be different from that of hemiplegia, which is pressure on the brain or spinal marrow. To Mr. Ward's favourite remedy, muscular exercise, we have not the smallest objection in chorea. He has detailed some cases, in which this measure appeared to be serviceable.

The 7th and last chapter contains miscellaneous observations on several subjects. In this chapter our author leads our attention to the good effects of muscular exercise in obstinate cases of chronic rheumatism, combined with the use of mercury. The cure of this disease, in general, he thinks, "may be ascribed exclusively to the administration of that medicine," but several cases have fallen under his care where mercury failed till the aid of muscular exercise was called in.

The influence of exercise in diminishing the frequency of the pulse is not undeserving of notice in this place. In the case of a young gentleman, whom I directed to use considerable muscular exertion, the first effect was to produce a considerable increased quickness of the pulse; at the expiration of a quarter or half an hour, however, when the immediate acceleration from exercise had abated, the number of beats had been reduced twenty and thirty in a minute. The same effect I have also frequently witnessed in adult age. In a gentleman of forty years of age, whose pulse had regularly, during two years, beat ninety strokes in a minute, it fell to eighty, and subsequently seventy-five, on using daily strong muscular exercise.

"In gouty concretions of the joints, excitement of the muscles, whether by voluntary exercise, or other modes, as those of friction, shampooing, or percussion, or a combination of all of them, may be employed with success, observing the caution before given, to bring into action the muscles which move the affected joints, and to limit the friction, &c. to those parts only, rather than apply it to the seat of disease." 165.

We have now given a very full account of the little volume before us, and our readers will probably perceive that we are inclined to think favourably of the work. It is written with great modesty and good sense; and it invites our attention to a remedial agent which is much wanted in these days of effeminate manners and sedentary habits.

V.

1. *Saggio Clinico sull' Iodio, e sulle differenti sue Combinazioni e Preparazioni Farmaceutiche, &c. i. e. Clinical Essay on Iodine, and its different Combinations and Pharmaceutical Preparations; from Results obtained in the Clinical School of Padua, in 1820-1821.* By PROFESSOR BRERA. Octavo, pp. 106. Padua, 1822.
2. *Observations on the remarkable Effects of Iodine in Bronchocele and Scrofula: being a Translation of three Memoirs published by J. R. COINDET, M.D. of Geneva.* Octavo, pp. 32. London, 1821. Translated by J. R. JOHNSON, M.D.

BEING thoroughly convinced that it is not to the discovery of new remedies, but to the improved application of those already known, through the increase of pathological knowledge, that we are to look for any important advancement of therapeutics, we are accustomed to hear the frequent announcement of fresh accessions to the materia medica, with perfect tranquillity; and if we occasionally avail ourselves of such in our practice, it is rather in compliance with fashion, than from a conviction of their superiority, much less of their exclusive power to fulfil any important indication in the treatment of diseases. Indeed, we are well convinced, that modern medicine has derived infinitely more precious benefits from many physiological and pathological discoveries, of little notoriety and less pretensions—contained probably in some few unostentatious paragraphs, than from all the multifarious additions, rejections, and revivals, which have characterized our pharmacology during the last fifty years. Still it is neither liberal nor philosophical to reject unheard the claims of these new candidates for a place in the storehouse of health; nor is it just to declare that all those which have been heard and tried are either useless or unnecessary. The great majority of such novelties unquestionably are so; yet it is but fair to admit that some few of these (for example, colchicum, croton, cubebs, prussic acid,) are at least deserving a place among the list of substances possessed of analogous powers. Each and all of these, it is true, we expect to live long enough to see consigned, like the other articles of present fashion, to a temporary oblivion, until resuscitated to gratify the unquenchable appetite of novelty, with the bag-wigs, red heels, hoops, or trunk-hose of our ancestors; still we feel that it is our duty, as ministers of health, and still more as medical analysts, to make ourselves, and also our readers, acquainted with them as they respectively present them—

selves before us ; and to hear and judge their claims and pretensions to our regard, be they great or small. It is on this principle that we have, in former numbers of our Journal, devoted some portion of our pages to the medicines above mentioned ; and in the present article we intend to introduce to our readers another new agent, that comes before us with as high pretensions, and probably with powers as great, as any of its recent precursors. This new medicine is IODINE, which has now been somewhat more than two years known to the profession, but which has hitherto obtained from us only a very brief and imperfect notice.—(Vol. II. p. 322.)

The simple substance, Iodine, was discovered in the soda derived from the incineration of certain marine vegetables, by Mons. Courtois, in the year 1813. Several of its properties were first investigated by M. Clement ; but it is principally to Sir H. Davy and Gay-Lussac that we are indebted for our knowledge of the chymical habitudes of Iodine. For the history of this discovery, and the subsequent development of the various relations of this substance we must refer to the 88th, 89th, 92d, and 93d vols. of the *Annales de Chimie*, and to the various scientific journals published in this country since the period of its discovery.

The first experiments on the living body with this new agent, were made by Majendie, who was led to conclude that it was not poisonous ; but subsequent experiments of Orfila on animals completely establish its great virulence, in certain doses, and justified its classification among the corrosive poisons. It is to Dr. Coindet of Geneva, however, that we are entirely indebted for the introduction of iodine into medicine. This gentleman reflecting on the benefits derived from burnt sponge, from time immemorial, in the cure of bronchocele,* and on the more recent discovery of similar virtues in the preparations of the common sea-weed (*fucus vesiculosus* ;) and on the fact that iodine is common to these and other marine productions ; was led by analogy to suspect that it was to it that the influence of these substances in curing bronchocele was to be attributed. As he lived in the midst of a

* We are informed by Professor Brera that there is preserved in the library of St. Mark, in Venice, a copy of the works of Van Helmont, full of marginal annotations in the hand-writing of our famous countryman Locke, among which is the following formula recommended for the cure of goitre :—

R. Spungæ marinæ in carbonem combustæ uncias tres ossium aspiæ ustorum, piperis longi, zinziberis, pyretri, gallarum, salis gemmæ, calcis testorum avorum—*ana unciam unam*. Terantur omnia simul in pulverem fin. cujus uncia semis. liquat. deglutitur paulatim & crescente hore.

population very subject to this complaint, he had an immediate opportunity of putting his conjecture to the test of experiment, and was speedily gratified by obtaining the most decisive proofs of the efficacy of the new remedy. The result of his first trials were published by Dr. Coindet in July 1820, in a memoir printed in the *Bibliothèque Universelle*; and this was afterward followed by two others. These memoirs were translated into English by Dr. J. R. Johnson, and published in the form of a small pamphlet, in the winter of 1821. In his first memoir Dr. C. informs us that under the use of iodine a vast number of cases of bronchocele have been cured in a space of from six to ten weeks, and in such a way as to leave no trace of their existence; but that some of the tumours that appear goitrous resist the action of this remedy under every form of prescription; and that others are only dissipated partially, but so as to leave neither inconvenience nor deformity. He states iodine to be a most active emenagogue; and concludes by expressing his conviction "of its becoming, under skilful hands, one of the most powerful remedies with which modern chymistry has enriched the *materia medica*." In his second memoir, the author protests against the unjust clamour that appears to have been raised against the new remedy by the public in Geneva on the score of its dangerous effects on the living system; attributing such ill effects as may have been witnessed by others, to the incautious, indiscriminate, and popular use of it, and repeating his former opinions, strengthened by additional experience, of its great efficacy and (when properly administered) perfect safety. He here states that the neutral salt formed by the hydriodic acid and potass to which some pure iodine has been added (*ioduretted hydriodate of potass*) is the preparation most easy to manage, and is the one almost exclusively used by him. In this memoir the author enters somewhat more fully upon the effect of iodine on the animal economy, and gives some account of the symptoms developed by its continued use, or the *saturation* of the body with it, in which respect (as we shall see hereafter) it resembles mercury and arsenic. He repeats his belief that the new remedy will be found useful in amenorrhœa and other chronic diseases of the uterus; and states his having found it very successful in the cure of indolent scrofulous tumours of the glands in the neck. In his third memoir Dr. Coindet gives an account of his trials with the iodine rubbed in *externally* with lard, and states his having treated twenty-two cases of goitre in this manner, and cured more than half of these in from four to six weeks. He was led to employ the remedy externally in hopes that it would not be found to occasion the disagreeable

effects occasionally resulting from its internal use, and which he seems to think owing to its local action on the mucous membrane of the stomach and bowels; and he considers that experience justified his hopes, as he says that this method "presents a sure and easy mode of employing this powerful remedy, exempt from those objections made to its internal exhibition." In this memoir he states his further experience of the iodine in enlarged scrofulous glands, and that his success has exceeded his most sanguine expectations. He suggests the probable benefit of a combination of this medicine with mercury in syphilitic complaints complicated with scrofula; and of the simple remedy in ovarian affections, from the analogy some of these bear to the disease of the thyroid gland.

Since the publication of Dr. Coindet's memoirs, iodine has been employed by many practitioners of eminence, as for instance, by Dr. Decarro of Vienna, Formey of Berlin, Majendie and Gimelle of Paris, Sacco and Omodei of Milan, Fenolio of Turin, and lastly, by the distinguished author of the *Clinical Essay*, whose title is placed at the head of this article. In the hands of all of these it has been most successful in the cure of bronchocele, and has been considered by some of them as a valuable medicine in other diseases. In this country, we believe it has not had a very ample trial. We mentioned in a former number of this Journal that it had been used in one case by Dr. Kennedy of Glasgow, without success; but we learn from some communications in the *Medical and Physical Journal* for August and October 1822, that it has been used with great success in the case of goitrous affections common in the elevated parts of Sussex and Surry. In one instance a comparative trial of the sponge lozenges and tincture of iodine was made by a very judicious and well informed practitioner, Mr. Austin of Haslemere, and the result was in favour of the superior efficacy of the latter. In the part of the country just mentioned (Haslemere) we have the means of knowing that bronchocele prevails to a surprising extent, affecting almost every female (and scarcely any males) among the labouring classes. In these cases the burnt sponge lozenges (prepared by Shepherd of Fleet-Street) are considered by the resident medical gentlemen as of almost specific efficacy, if persevered in for a sufficient length of time, and are not found to be productive of any ill effects.

Mr. Austin, we are informed, is now engaged in giving a full trial to the iodine; and we have every reason to expect from him a judicious administration of the remedy, and a faithful history of its effects.

It was with the knowledge of the results obtained from the

employment of this remedy in France, Switzerland, and Germany, that Brera determined to give it a full trial in the Clinical School of Padua in the year 1821; and in the small volume before us he has submitted to the profession the fruits of his experience. Although the author entitles this a *Clinical Essay*, and commences with a detail of cases, yet he takes occasion, in the course of his memoir, to give a more connected and comprehensive view of the general medical relations of iodine than is to be found in any other work; and as we think these details will prove much more interesting than the cases, we shall reverse the order of his Essay, and give an account of these general matters first. In doing this, as our object will be to submit to our readers an epitome of what is known respecting the new remedy, we shall neither restrict ourselves to the order nor to the substance of our author's treatise, but cull our materials from whatever other sources are accessible to us.

I. *Chymical History of Iodine.* For a complete account of this we must refer to the sources formerly mentioned, and to the work before us. We shall only here observe that iodine is a simple substance, of characters analogous to those of oxygen, chlorine, &c. solid at the ordinary temperature of the atmosphere, but volatile at a moderate degree of heat, under the form of beautiful *violet-coloured* fumes, from which it has derived its name. It is very sparingly soluble in water, but much more so in alcohol and æther. It is not inflammable. It forms acids when combined with hydrogen, oxygen, and chlorine, which are respectively named—the *hydriodic*—the *iodic*, and the *chloriodic* acids; and it unites with many of the metals, forming *iodurets*. Its acids form salts with the alkalies, earths, and metals; of which, and also of the pharmaceutical preparations derived from these, a very complete catalogue is given in Brera's memoir.

II. *Pharmacology.* We have already stated Dr. Coindet's opinion that the ill effects occasionally found to follow its internal use would be obviated by its external application. Brera, however, informs us that further experience has proved the fallacy of this notion, and assures us that it can be employed internally with equal safety, and with greater effect, except in such cases as require its topical agency. The following are the formulæ most recommended by Professor Brera.

1. *Tincture of Iodine.* Made by dissolving 48 grs. of pure iodine in an ounce of alcohol (at 35.) This is the preparation most frequently used at first by Dr. Coindet, who,

as well as Brera, recommends it being used *fresh*, as it is liable to decomposition in a few days. The dose is from five to twenty drops for adults, three times a day. Twenty drops contain about one grain of iodine.

2. *Pills of Iodine*, made by forming one grain of iodine into two pills, with elder-rob and liquorice powder—one to be taken morning and evening.

3. *Iodine Ointment*, made by rubbing up a dram of pure iodine with an ounce of lard, or half a dram of hydriodate of potass with an ounce and a half of lard; the former in the quantity of a scruple, the latter about the size of a filbert, rubbed on the part.

4. *Solution of Hydriodate of Potass*. This preparation is stated to be preferable to any of the foregoing, producing their good effects without their inconveniences. It is formed by dissolving 36 grains of the hydriodate in an ounce of distilled water, and is given in the same dose as the tincture.

5. *Solution of the Ioduretted Hydriodate of Potass*, formed by dissolving 36 grains of the hydriodate and ten grains of pure iodine in ten drams of water. This is said to be a still more efficacious preparation than the preceding, and requires to be given in small doses, viz. five or six drops, three times a day, to begin with.

The following precautions are to be attended to during the administration of iodine:—not to combine it with substances likely to decompose it, and not to give it when the stomach is loaded, but in the morning, a couple of hours before or after dinner, and in the evening. Our author farther recommends the occasional suspension of the medicine, on account of the sometimes sudden supervention of unpleasant effects from it, and to give a dose of magnesia on the day of its suspension, with the view of clearing the *primæ viæ*. The liquid preparations may be given in any vehicle. Coindet usually employed syrup and water.

III. *Effects of Iodine on the Living Body.*

A. *On Animals*. We have already observed that both Majendie and Orfila, on the first discovery of iodine, made experiment of its effects on animals. The following are the results derived from the trials of the latter on dogs.

1. Introduced into the stomach in small quantity, it acts as a gentle stimulant, and excites vomiting.

2. In the dose of a dram it invariably destroys the dogs to which it has been administered, (the œsophagus being tied,) producing ulceration of the mucous membrane.

3. In the dose of two or three drams it produces similar effects in the animals whose œsophagus has not been tied,

provided they have not vomited for some hours after its ingestion.

4. It is not fatal when applied externally.

5. It seems to act on the human body in the same manner as on animals.

6. It ought to be classed among the corrosive poisons.

B. On Man. When iodine is cautiously and gradually introduced into the system, it affects it in a general manner, analogous to that of mercury, but very different in the consequences. The first, and what may be called the *salutary* effects of iodine, are an increase of appetite and of the strength of the pulse; whenever these are produced, we must watch with the greatest care that these salutary limits are not exceeded, and the pernicious consequences of an oversaturation of the system induced. The complete impregnation of the system is indicated by the change of the above mentioned increased action of the pulse into decided frequency and quickness—by a sense of heat and irritation of the fauces—pain of the orbits or eye-balls, with obscured vision—pain of the internal ears and gums, (with occasional salivation,) headache, restlessness, loss of sleep, with swelling and pain of the diseased organs, (e. g. thyroid and other glands,) and an increase of appetite sometimes to a degree of voracity. In some persons the submaxillary glands become painful and swollen, and a similar state of the mammæ, with *eventual diminution of their natural volume*, takes place in some females. When given from the first in an over-dose, iodine produces a strong burning sensation in the fauces, which frequently extends down the œsophagus to the stomach and whole intestinal canal. In a still higher degree of saturation (or *iodization*, as the author calls it) of the system, to the above mentioned symptoms succeed very considerable emaciation even in the space of a few days, excruciating pains in the orbits and eyes, with great defect of vision, and similar pains in the diseased parts; the strength vanishes; neuralgic pains are experienced in the stomach, chest, bowels, &c. the sleep entirely fails, and there is obstinate palpitation of the heart, with tremors, convulsions, or palsy of the extremities; to the excessive appetite succeeds complete anorexia, and the factitious disease finally terminates life, in a short time, by universal inflammation of the nervous and vascular systems, (*profonde angioitidi e neuritidi.*)

Upon the appearance of the milder class of symptoms above mentioned, the immediate suspension of the medicine (which ought always to be done) sometimes is found sufficient to put a stop to them in a few days. For allaying

these deleterious effects, rigorous regimen, copious mucilaginous drinks, and the tepid bath, are recommended ; and where the topical affection of the goitre, or other tumours, runs high, fomentations, poultices, leeches, &c. are prescribed ; and general bleeding is advised where there exists a high phlogistic state of the whole system.

As these symptoms sometimes show themselves all at once, we ought to be cautious in not too hastily increasing the dose in cases wherein no obvious effects are produced. After the bad symptoms are allayed, the medicine is to be repeated with the same precautions as in the case of mercury and arsenic.

IV. Medical Effects—or Effects on Disease. From the preceding history of the effects of iodine on the living system, it must be admitted to be a powerful agent ; and the statements formerly made of its efficacy in the cure of bronchocele, prove its potency to be available in the hands of medical men. Of its precise mode of acting on the living system, more especially in the cure of disease, we are hardly well assured. Dr. Coindet says,

“ Iodine is a stimulant ; it gives tone to the stomach and excites appetite ; it neither acts upon the bowels nor kidneys ; produces no perspiration, but exercises its action upon the generative system, especially the uterus. If given in a certain dose, and continued for some time, it is one of the most active emenagogues with which I am acquainted ; it is, perhaps, from this sympathetic action that it so frequently cures the goitre.”—*First Mem.* p. 12. Again—“ The experience of two years upon more than two hundred patients, has proved to me, that this remedy is one of the most energetic stimulants we know of the lymphatic system ; and the variety of diseases in which I have employed it, (such as goitre, scrofula, enlarged glands of the breast, certain affections of the uterus, some cases of dropsy, &c.) is only apparent, since the whole of these diseases are only lesions of the same system.”—*Third Mem.* p. 31.

Professor Brera sums up his opinions respecting the new agent in the following terms :—

“ Iodine, then, is, on many accounts, entitled to be classed among the heroic remedies, and to obtain a place by the side of mercury. Like mercury, it maintains a permanent action on the system for a considerable time after its administration has been suspended. Powerfully exciting the nervous system, it accelerates the action of the heart and arteries, and restores the functions of the sanguiferous and organic systems when preternaturally affected. It thus produces appetite, fattens the lean, and emaciates the robust.(!) Determining a particular action on the thyroid gland and uterus, it removes the morbid enlargements of the former, promotes scanty, and lessens excessive, menstruation, and even diminishes the size of the mammae. This last mentioned fact, taken in conjunction with its undoubted

efficacy in removing goitre, gives us reason to hope that this medicine may be found beneficial in the cure of organic enlargements of the ovaries and uterus."—*Saggio*, p. 83.

He afterward adds, that iodine produces its remedial effects without exciting any purgative, diuretic, or diaphoretic action; and that it has no effect on the thyroid gland and uterine functions, when in a *sound* condition.

Many of these sanguine anticipations of the wonders worked, or hereafter to be worked, by iodine, we have no manner of doubt will be disappointed, and are, in truth, little justified by the facts adduced by their very promulgators. Of the great powers of iodine in the cure of bronchocele, we think, we cannot, from the evidence before us, legitimately doubt; and the establishment of this single fact is sufficient, in our minds, to entitle the remedy to the greatest consideration. So rarely, indeed, are we presented, in the practice of medicine, with agents of specific powers, on whose efficacy, in the removal of disease, we can calculate with any thing like certainty,—and so frequently are we left, in doubt, even in our most successful cases, whether it was our prescriptions or the spontaneous agency of Nature's restorative powers, that produced the benefit,—that it invigorates, at once, our confidence in medicine, and our zeal in the practice of it, when we fall upon a remedy on which we can pretty confidently rely, even, although the sphere of its operation be confined to a single form of disease. If, then, it be true, that *iodine*, whether in the form of burnt sponge, or kelp, or under a more scientific aspect, is capable of removing a considerable proportion of goitrous tumours, even of many years' standing, we shall be willing to give it a high place in the *materia medica*, even if its powers should be entirely confined to this class of affections.

In the memoir before us, Professor Brera does not detail his experience of the efficacy of iodine in bronchocele, because, he says, the results obtained by him have been similar to those of Coindet and others. His principal object appears to have been, to try its powers in some other forms of disease, in which it had been proposed or employed by its discoverer, or suggested, to himself, by analogy. The clinical observations detailed by him, are thirteen cases of his own, and four communicated by one of his friends, and consist of one case of (supposed) incipient *tabes mesenterica*; two cases of vicarious hæmoptysis, and one of vicarious hæmorrhage from the eye; one of chronic dysentery; one, laryngeal phthisis; three of amenorrhœa, and one of dysmenorrhœa; two of swelled submaxillary glands; two of bronchocele; two of scrofulous ophthalmia; and one of scrofulous glandular tumours.

In reviewing the history of these cases, as given by our author, we are compelled to declare, that, in as great a proportion as two-thirds of the whole, there is no proof whatever of the complaints being removed by the iodine ; and, that in several, it seems infinitely more probable, that the other means employed at the same time effected the cure. Indeed, we are extremely surprised to find these cases adduced by a practitioner of Professor Brera's experience, as instances of cures effected by the iodine. In the cases of bronchocele, however, and other enlargements of glands, the effect of the remedy appears to have been sufficiently conspicuous ; and, in conjunction with Dr. Coindet's experience, fully justify its employment, and with considerable prospect of benefit, in indolent glandular tumours in strumous subjects. We have already devoted too much of our space to permit us to give even an outline of these cases. We must, therefore, refer to the work itself.

In conclusion, we would beg leave to repeat our opinion, that in iodine we have a valuable addition to the *materia medica* ; that its efficacy in the cure of bronchocele appears to exceed that of every other medicine hitherto employed ; that its power in dissipating other chronic glandular tumours seems very probable ; and, that it is deserving of a trial in other diseases, more especially in such as bear any analogy to those in which it has been proved to be beneficial.* At the same time, we must recur to the declarations with which we set out, and which can never be too much and too frequently impressed upon the minds of the younger members of the profession,—that it is only by the *study of DISEASES* that professional eminence or usefulness can be obtained,—that a constant hunting after, and great confidence in, medicines of supposed specific powers, is an unfailing indication of a weak understanding,—and, finally, that, according to the expression of the great Boërhaave, *there really is no remedy, "nisi quod TEMPESTIVO USU fiat tale."*

* Since writing the above, Dr. Baron's "Illustration" has come to hand, and in it we find strong reasons for hoping that, in iodine, we possess a medicine of no mean power in resolving tubercles in the lungs, and tubercular affections in other parts of the body. We refer our readers to the analysis of Dr. Baron's work in another part of this number for further particulars.

VI.

A Practical Essay on Diseases and Injuries of the Bladder, being that to which the Royal College of Surgeons adjudged the Jacksonian Prize for the Year 1821: Irritable Bladder is treated of in all its Varieties, both with and without Mucous Discharges; also, Inflammation, Suppuration, and Ulceration of that Organ; with Cancer and Stone, the Formation of which last is explained on entirely New Principles: Retention and Incontinence of Urine are considered very fully; and the whole is prefaced by an Inquiry into the Mutual Influence that exists between Life and Organization; including some Observations on Ocular Spectra, and the Nature of Mind. By ROBERT BINGHAM, Fellow of the Royal College of Surgeons; Author of Practical Essays on Strictures of the Urethra and Diseases of the Testes, &c. &c. and Lecturer on the Theory and Practice of Surgery. Octavo, pp. 467. London, October, 1822.

THIS Essay was composed in a great hurry, the author having only three months to prepare it for adjudication at the College. Its bearing off the prize, is a proof that it was the best Essay offered at that time; and such sanction is, undoubtedly, a better reason for coming before the public at large, than most authors can offer.

Mr. Bingham thinks, that a digest of what has hitherto been advanced upon the subject of Vesical diseases, scattered as the materials must be throughout the writings of so many authors, has long been a desideratum in surgery. Independently, however, of bringing the rays of knowledge into a focus, our author hesitates not to assert, "that this volume contains much new matter, with respect both to the nature and treatment of the diseases in question." A few of these novelties are glanced at in the preface. One is, the showing of disease in the urinary bladder, originating in consequence of ulceration in the large intestines. Another claim to originality is, the pointing out of spinal affections as productive of irritability and mucous secretion in the bladder. On retention of urine, he asserts, that much new and important information is communicated. "Hitherto it has never been explained, or even suspected, that retention of urine sometimes proves fatal in consequence of a vicarious secretion taking place into the lungs, and causing suffocation." When we come to the subjects individually, we shall probably show,

that Mr. Bingham is not quite so original as he supposes himself to be, on some of the points above mentioned.

The work is prefaced by "an Inquiry into the Influence that exists between Life and Organization." We certainly can see little occasion for this metaphysico-physiological proem to a work on the bladder; and think Mr. B. would be wise to cut it out of his next edition. He states that, in the preface to his work on Strictures, he has *proved* organization "to be the effect of *pre-existent* life acting on unorganized matter." Now, although we hope and believe, that mind may exist independent of matter, yet, as we never did, and never can, see mind or life unconnected with organization, there cannot possibly be any *proof* shown of their separate existence. It can only be a matter of belief, or a matter of speculation. So far Mr. Bingham's confident expressions about *proofs* are not well calculated to prepossess us much in favour of his reasonings on this, the threshold of the work.

A considerable portion of this inquiry is taken up in the description of a kind of natural kaleidoscope or phantasmagoria, which our author has discovered by lying on his back, closing his eyes, and pressing firmly upon the centre of each with the point of his finger. By this operation, he produced a succession of ocular spectra, more numerous than "autumnal leaves in Vallambrosa;" and of which he has laboured to give a description, but evidently in vain.

"The deep hue and brilliancy of the colours and the general sparkling, beautiful appearance of the whole spectrum baffles description. I can think of nothing which bears any comparison with it unless it be a piece of Mosaic work, composed of the finest gems, rubies, emeralds, diamonds, &c."—*Inquiry*, xlv.

We are really surprised, that a man of Mr. Bingham's sense, could bring himself to fill so many pages with descriptions of such ridiculous phantoms; and, as for the theories growing out of them, they appear to us to be, in every sense of the word,—completely *visionary*. It is a pity our author did not transmit his new phantasmagoria to the College with the prize essay, to be deposited in the museum for the amusement of certain old "fellows," who are fond of optical illusions.

But we must leave the region of fancy, and descend to the region of facts. Under about seventy heads, Mr. Bingham descants on as many diseases or operations appertaining to the urinary bladder. Another volume is to follow on the prostate gland; and our readers are aware, that a volume on the urethra has preceded. England is now the land of monographs; and the ancient rage of system-makers is almost extinct.

Irritable Bladder. This complaint is very often sympathetic of diseases not in the bladder, but in the urethra, prostate, uterus, vagina, rectum, kidneys, and in the digestive organs. In such cases it will be needless to aim at relieving the symptom without removing the cause. Several cases are related by Mr. Bingham of irritable bladder from derangement of the alimentary canal, and which were cured by regulating the diet, correcting the secretions by alteratives, and giving tone to the digestive functions by vegetable bitters. The cases of supposed ulceration in the colon producing irritable bladder, appear to us doubtful. We can hardly think that the disease amounted to actual ulceration. Patches of a purulent-looking matter on the fæces are no proofs to our certain knowledge of ulceration in the gut. Speaking of that irritability of bladder which not unfrequently attends severe gonorrhœa, our author states, that he has invariably found it to be relieved by light tonic medicines. Our author introduces cases of irritable bladder from diseases in the various neighbouring organs above mentioned, and then proceeds to—

Irritable Bladder with Mucous Discharge. Irritability without discharge shows that only the nervous system of the bladder is affected—when a secretion of mucus takes place from the internal surface, it is a proof that there is an increased vascular action. Mucous secretion from the bladder is met with in four different states—like a jelly, adhering all round the inside of the pot de chambre—puriloid, so as to be with difficulty discriminated from pus—glairy and exceedingly tenacious—and mixed with an earthy matter, which has been compared to hair-powder.

To determine whether there be a morbid secretion of mucus from the bladder, the urine should be examined immediately after it is voided ; for when cold it often throws down a sediment which may be mistaken for mucus. If only cold urine can be procured, it should be heated to a vital temperature ; and if mucus still appear, it will be presumptive proof, though its disappearance by heat is no certain proof to the contrary. We do not think it possible in all cases to distinguish pus from puriloid mucus ; nor is it of much consequence, since we know that real pus may be secreted from an unbroken surface.

Etiology. There can be no doubt entertained in the present day, that the immediate cause of catarrhus vesicæ, (the name given by Lieutaud, and perhaps the best) is irritation or inflammation of the mucous membrane of the bladder. The causes that determine this state of the membranes are

numerous, and may be divided into general or sympathetic, and local. Mr. Bingham observes that the application of cold to the surface of the body must be a very rare cause of this complaint. We do not think so. Nothing is more usual in cases of common colds, than a temporary mucous discharge in the urine—an observation which every old woman in the kingdom is in the habit of making. Our soldiers, when exposed to great cold and wet at nights, by bivouacing in the open air, are not uncommonly affected for a time with catarrhus vesicæ. Immoderate exercise, or the contrary, a sedentary life, great mental exertion, the depressing passions, and old age itself are all occasional causes of the disease. Derangement of function in the digestive organs, if long continued, may produce this sympathetic affection of the bladder as well as irritability. The use of very stimulating diuretics, as the lytta, the suppression of periodical discharges, as of perspiration of the feet or the hæmorrhoidal flux, has been known to produce catarrhus vesicæ, and so has the imprudent repulsion of cutaneous eruptions. Metastases of rheumatism and gout may be reckoned among the causes of this complaint.

Among the local causes we would place in the first rank, obstructions to the free discharge of urine along the urethra, and irritation propagated from that passage to the bladder. We imagine that the rarity of the disease in former times, and its frequency in our days, may be accounted for by the prevalence of gonorrhœal affections within the last three or four hundred years.

“My own experience,” says Mr. Bingham, “would lead me to think that it (catarrhus vesicæ) results most certainly from the irritation of some portion of urine being always retained in the bladder, and this seems to be the case whether the retention be caused by paralysis of the bladder, or enlargement of the prostate gland.”

Now we really cannot see the force or the ingenuity of this doctrine. If indeed the urine were retained so as to make painful distention of the bladder, and thereby keep up irritation, we would set it down as a cause; but the mere retention of a small residue at each évacuation, does not appear to us to be an adequate cause. The inner coat of the bladder is always in contact with urine. The receptacle is no sooner emptied than new urine begins to trickle down from the kidneys, so that the mere presence of urine cannot be irritating. It is the *distention* of the bladder, or the *force* which it may be necessary for it to exert in discharging the urine that appears to us to be the main cause in these instances.

Our author's Essay on Catarrhus Vesicæ is very incom-

plete. He gives little or no symptomatology or history of the complaint—no division of the disease into acute and chronic—and no *post mortem* appearances. These are striking defects. The *acute* form of the disease is generally preceded or accompanied by a febrile movement in the system, and by some heat, pain, or sense of tension in the hypogastric region. To these succeed frequent inclination to make water, and some difficulty in making it. The urine itself, on standing, deposits a mucous sediment. These symptoms continuing, with more or less intensity, for some days, either gradually subside; or the febrile and inflammatory phenomena disappearing, the local ones continue, viz. the irritability of the bladder, and the secretion of mucus. Chronic catarrhus vesicæ is then established.

This last form of the disease, however, which is far more common than the acute, generally creeps on in so slow and insensible a manner, that no febrile or inflammatory symptoms are recognised. The causes may nevertheless be the same as those of the acute species. Calculous concretions of an angular or irritating figure, are not unfrequently the causes of chronic cat. vesicæ, which is more commonly found among elderly people, and those who have been afflicted with gout, rheumatism, or cutaneous complaints. The quantity of mucous sediment in this species varies much, being sometimes a quarter, a third, or even half of the whole fluid discharged from the bladder. When this mucous discharge is considerable, it is generally accompanied by emaciation, but seldom by fever or constant pain in the urinary apparatus. The principal inconveniences which it produces are the frequent inclination to make water, and sometimes the difficulty of discharging it, when it is very ropy. In this state, and when not occasioned by a foreign body in the bladder, the disease may continue for years, and even for the greater part of a person's life, without proving fatal. At the same time, although there are instances of a cure being effected in this complaint, it must be confessed that such a fortunate issue is rarely to be expected, especially in elderly people.

Dissection presents us with a quantity of fetid and mucopurulent urine in the bladder, the tunics of the organ being thickened, and its mucous lining studded with numerous glandular bodies, from which the same kind of glairy mucous fluid, which passed with the urine, can be squeezed. Ulceration of the interior coat is also occasionally found; and enlargement or other disease of the prostate gland.

In the treatment of vesical catarrh, whether acute or chronic, it is necessary to make a diligent scrutiny into the cause

of the complaint; for, by directing our agents towards the original source, we have a better chance of success. But whatever the cause, one important indication is to allay the irritation and inflammatory state of the bladder itself. Where the inflammatory symptoms are pretty well marked, blood should be taken from the loins by cupping, or leeches applied to the pubic region, followed by emollient fomentations and hip-baths. The drink should be of the most unirritating and diluting kind, as linseed or marshmallow tea, barley water with gum, &c. If any difficulty in the passage of the urine occurs, the catheter should be introduced; for nothing is so injurious to an inflamed bladder as straining to evacuate its contents. Anodynes may also be employed, where the irritation is considerable, especially the hyoscyamus, conium, and lactucarium. The digestive organs must be strictly attended to. Food must be of the blandest and least stimulating kind, and daily evacuations procured by the most simple aperients, as castor oil or the neutral salts.

Some authors, and especially Foote and Wadd, have recommended injections into the bladder, and we think this remedy is too much overlooked. Chopart injected the liquor plumbi acetatis dilutus into the bladder of an old man, 75 years of age, who was exhausted by an excessive catarrhus vesicæ. The glairy discharge was greatly restrained, the patient acquired strength, and lived two years afterward.

For the cases of catarrhus vesicæ related by Mr. Bingham we must refer to the volume itself.

Inflammation of the Bladder. Mr. Bingham's description of this complaint is very imperfect. He does not divide it into the acute and chronic forms—at least, he only quotes *Hoffman's Practice of Physic* for cases that existed several years. The following is our author's symptomatology of cystitis.

"This is denoted by tumour, and burning pain in the hypogastric region; tenderness both above the pubes and in the perineum; incessant desire to make water, with violent straining; vomiting, tenesmus, and frequent pulse; great restlessness, wild expression of the eyes, and occasional delirium, and sometimes retention of urine." P. 91.

We should not be inclined to place the hypogastric tumour in the front rank of symptoms, as it occurs only in consequence of the retention of urine, which last symptom is itself only a consequence of inflammation about the neck of the bladder. The same etiology which was described in catarrhus vesicæ is applicable to cystitis, which is only an

extension of the inflammation from the internal to the whole of the coats of this viscus. The treatment is the same as for the acute catarrhus vesicæ, only that it is to be more energetic in degree.

Chronic inflammation of the bladder is sometimes a sequel of the acute form, and sometimes steals on, like chronic vesical catarrh, by imperceptible degrees, at the beginning. Its symptoms do not materially differ from those of the last mentioned disease, and it generally has a fatal termination, by ending in complete disorganization of the bladder. The following are the usual appearances on dissection. The capacity of the organ is greatly diminished, and in its contracted cavity is found a mixture of urine and puriform, or muco-purulent matters. The coats of the bladder are greatly thickened, and indurated sometimes to an almost horny consistence. The coats are often found an inch or even two inches in thickness, and the muscular tunic developed in an extraordinary degree, the cavity sometimes not larger than would contain a crab-apple. On the other hand, the volume of the bladder has been found enlarged to the size of a child's head, by the thickening of the parietes, the internal cavity not being larger than that of an egg. When the inflammation has occupied much of the peritoneal covering of the bladder, extensive adhesions are found to exist between it and the neighbouring parts. Excepting where the cause is a calculus, and the operation is performed, the treatment can only be palliative, and may be easily gathered from what we have said of chronic catarrhus vesicæ.

Retention of Urine. "Some authors," says Mr. Bingham, "have written that retention of urine is a disease of great urgency and danger, but this is not correct: for, strictly speaking, it is no disease at all. It often is the effect of disease, and it often is a cause of disease; but, as before stated, it does not of itself constitute a disease." We really do not comprehend this mystery, and Mr. Bingham has not condescended to explain it. In the very same page he virtually contradicts the above statement, representing retention of urine as sometimes coming on suddenly, "under which circumstances it is generally most complete and most alarming; for, unless it be speedily remedied, it runs its course, and terminates the life of the patient in a few hours, &c." How does this tally with the first sentence of the section that it is not a disease of great urgency and danger—in fact, that it is no disease at all! We can readily allow that retention of urine may be the effect of inflammation or stricture; but surely Mr. Bingham will not persuade us that, when the re-

tention takes place, it is not a serious disease in itself, and equal to the destruction of life, whereas no such event would take place, were it not for the supervention of this phenomenon.

The subject of retention, and the operations necessary for it, especially catheterism, occupy nearly a fourth of the volume, and from the want of order, the multiplicity of divisions, and the introduction of tedious cases, are spread out to a most tiresome length, and yet not containing full information on the point under discussion. The following is our author's etiology of the complaint.

"*Causes.* These are of two kinds, either the want of expulsive power in the bladder, or some insurmountable obstruction that prevents the flow of the urine. The want of expulsive power may be either a total paralysis or mere loss of tone, in consequence of the detrusor muscles having been sprained. The mechanical obstructions may be numerous, such as spasms and inflammation of the sphincter vesicæ, or of the membranous part of the urethra; a coagulum of blood or stone in the bladder; a calculus lodged in some part of the urethra; strictures of that canal; diseases of the prostate gland, or some imposthume forming near the anus." 129.

As it is of great importance to be well acquainted with the various causes of urinary retention, we shall enlarge a little on this subject, and cull information from other sources than the work under review.

Mr. Bingham takes no notice, that we see, of renal retention of urine, a complaint by no means uncommon. The ureter is liable to inflammation like other membranous canals, and to have his calibre lessened or obstructed by thickening of its coats, by coagula of blood, by calculi, or by tumours in the neighbourhood. In such cases the ureter, above the obstruction, dilates, and ultimately the kidney itself; some remarkable instances of which we lately gave in this Journal. Callisen and other writers have found several pints of urine in the pelvis of the kidney, and Desgranges reports instances where the ureter was enlarged to the size of the colon, forming convolutions and pouches of great magnitude. Unfortunately the symptoms of this malady are equivocal, and therefore we shall not dwell upon them; but the young practitioner should know that such diseases will occasionally cross his path, and the appearances on dissection should not take him by surprise.

Vesical Retention, then, is the disease with which we have most to do, and its etiology is very extensive. Calculi in the bladder sometimes cause retention of urine, and more especially small calculi that happen to get jammed in the

passage. In such cases the calculi must either be pushed back with the catheter, or extracted by means of the admirable forceps invented by Sir Astley Cooper and Mr. Weiss.

A coagulum of blood in the bladder is not a very rare cause of retention, especially after lithotomy. It requires the injection of warm water through the wound or urethra, and then the urine to be drawn off by a catheter. The same observations will apply where a collection of glairy mucus obstructs the passage and causes retention of urine, in some cases of catarrhus vesicæ.

Irritation or Inflammation of the bladder itself, especially of the neck of the bladder, is perhaps one of the most frequent causes of retention of urine, and this inflammation, congestion, or irritation may be determined by all the causes, local and constitutional, which we have alluded to as productive of vesical catarrh. It may be permitted us here to remark that when this cause of retention is present, it will be prudent to reduce, in a considerable degree at least, the inflammatory condition of the parts before catheterism be employed. This reduction will, of course, be effected by blood-letting, general and local, fomentations, glysters, antimony, and finally, anodynes. The catheter will then be much more easily introduced.

Paralysis of the Bladder is not an unfrequent cause of retention especially in elderly people, and it is astonishing to what a size the receptaculum urinæ will sometimes reach, under these circumstances. Instances are related by Lieutaud, Murray, Baldinger, and Beddingfield, where the bladder has contained fifteen, sixteen, and even twenty pints of water. It is well known that in these cases the patient goes on making water, but without ever completely emptying the bladder, and when the viscus arrives at a certain stage of distention, there is a constant dribbling, or an incontinence rather than a retention of urine.

The causes of this complaint are sometimes manifest, sometimes obscure. Over-distention, old-age, affections of the spine, excess of venereal indulgences, onanism, hard labour, are among the principal causes. It is evident that the catheter is our principal, perhaps only resource in such cases. But we would recommend our young surgical brethren not to content themselves, as they sometimes do, with drawing off the urine every twelve hours. They should draw it off every six hours at least; but the best plan is to leave the catheter in the bladder, and thus let the organ keep in a constant state of contraction. Richerand and some other surgical writers have exaggerated the dangers attendant on leaving

a catheter in the bladder, by supposing that air will get into that organ, and cause irritation or inflammation. This, we believe is quite imaginary.*

Of tumours and other disorganizations about the neck of the bladder, determining retention of urine, it is not necessary to speak here.

Urethral Causes of Retention. These are the most numerous class perhaps of all. Calculi, strictures, foreign bodies, clots of blood, inflammations, organic changes—all these in turn produce retention of urine, and require modifications of treatment according to the cause.

But we must now give some account of our author's observations on retentions.

He remarks that, if retention of urine be not relieved by art, it generally proves fatal. Most usually the bladder ulcerates, or rather sloughs, and the urine escapes into the neighbouring parts. The retention of urine, however, sometimes proves fatal without any extravasation of urine or breach of continuity of the bladder. Mr. Bingham asserts that the bladder is *never* lacerated by over-distention. This is a hardy assertion. William Hunter relates the case of a poor woman, whose bladder burst and discharged eight or nine pints of water into the abdomen, which quickly proved fatal. M. Deschamps relates a similar case in the 48th volume of the *Dict. des Sciences Medicales*, page 123. We believe, however, that these instances are very rare, and that the ulcerative process is the usual mode of the bladder's giving way.

The comatose state of brain which usually takes place in fatal retentions of urine, does not, he supposes, depend on *translation of urine to the brain*, but is entirely owing to a determination of blood. As all the excretions, and also the effusions on the brain, in such cases, exhale a urinous odour, we do not see any great improbability that there should be an absorption of urine into the blood, the same as of bile in jaundice, and thus irritation of the brain produced. One of Mr. Bingham's discoveries, as noticed in the preface, is the suffocation of some patients labouring under retention of urine, "in consequence of the air-cells of the lungs becoming filled with frothy fluid." Of the exclusive originality of this termination we doubt, for we see Montfalcon allude to it in the article "retention," in the *Dict. des Sciences Medicales*, without appearing to consider the observation as any thing new.

* In these paralytic cases much may be done in aid of catheterism by frictions with the lytta; and also by a judicious administration of the tinctura lytte internally.

But be that as it may, the case on which the doctrine is founded, does not appear to us to have a single symptom of retention of urine attached to it. Our author was called to a muscular man whom he found stretched out in bed perfectly insensible, with strong indications of congestion in the brain, his pulse 120, hard and full. His wife informed Mr. B. that he had only eaten and slept alternately for several days; and that about twelve hours previously, he had taken for breakfast, half a pound of beef-steaks, with a proportion of ale, and several glasses of gin.

"I inquired how he made water, and his wife replied very well, and assured me that she had seen him void a pint or more of colourless urine at one time that very day." 116.

Mr. B. drew off forty ounces of blood from the temporal artery, which brought him to his senses. Next morning he was found insensible—his breathing making a noise as if the air was forced through mucus, and much frothy fluid issuing from his mouth and nostrils. He died in a few hours. On opening the head, the vessels of the brain were found gorged with blood—the ventricles were deluged with serum—kidneys inflamed—"the bladder appeared to be perfectly healthy; it contained a little more than a pint of limpid urine, which distended it to feel tense as a drum head." Mr. B. found a stricture in the urethra, through which he could only force a very fine stream of urine. Now, notwithstanding the drum-head distension, produced by a pint of limpid urine, and the difficulty which our author found in forcing a stream through a dead urethra, we appeal to our surgical brethren, whether there was the slightest reason to put this case down as one of fatal retention of urine? No examination was made of the lungs, and on this case, is erected the novel theory to which our author draws the attention of the profession in his preface. That the man died of congestion and serous effusion in the brain, we have no doubt;—and, that the urinary organs had any thing to do with the fatal termination, we see no evidence.

In the treatment of retention of urine, our author recommends, under all circumstances, when the cause is inflammation or spasm, the warm bath, mild but active purgatives, anodynes, and, perhaps, bleeding. By "bleeding," he means venesection; for he properly recommends local bleeding in cystitis and in this kind of retention of urine. From having been told by some patients "who had complaints in the urethra, that they found much greater relief from bathing with cold water, than from using water that was warm," our author is disposed to think, that some cases of *retention of urine* would be most relieved by cold water. This is loose reasoning in a

practical prize essay. Our author, we think, is judicious in pointing out the impropriety of indiscriminate recourse to the catheter as the first measure in every case of retention of urine. "Retention of urine, (says Mr. B.) resulting from inflammation and spasm, may almost always be relieved by means of the warm bath, anodyne enemas, mild but active purgatives, and the abstraction of blood." This was the opinion of Pott and Heister. Mr. Bingham has no opinion of the muriated tincture of iron in retentions of urine; and on inquiry among his most intimate friends, the same opinion was elicited. As we have never trusted to this remedy alone, in such cases, we cannot say what is the exact power which it individually possesses in relaxing spasm about the urinary passages. The infusion of tobacco he prefers to the smoke.

Catheterism. Our author makes some judicious remarks, on the process of instrumental aid in retention of urine, but they are excessively diluted, as usual, with words and cases, not always the most illustrative. Where the retention has been caused by a voluntary abstinence from discharging the urine too long continued, Mr. Bingham thinks, that we cannot too soon have recourse to artificial means of emptying the bladder, "for, in these instances, the spasm of the sphincter vesicæ having been first occasioned by powerful volition, is afterward continued in consequence of irritation from urine." There are some cases, he observes, where a kind of valve is formed over the internal orifice of the urethra, which confines the urine more and more perfectly, in proportion to the violence of the efforts to expel it. These cases can only be relieved by instruments. Elastic gum catheters our author prefers to silver.

"Used on a stilet they may have the same degree of firmness imparted to them as belongs to the silver ones, and owing to their pliability, if employed without a stilet, they may frequently be successfully introduced in the same manner as a bougie, which is by far the simplest operation of the two, and often constitutes the only means by which an unpractised operator will be able to succeed." 158.

Mr. Bingham considers it a good plan, to keep the elastic gum catheter on stilets that are much bent, for, by being retained a long time in this shape, they acquire a degree of curvature of their own, which makes them, he avers, very superior instruments for some patients, especially those affected with prostatic diseases.

Here we must stop; for, on running over the remainder of the volume, we found that we could glean little that was worth extracting. Upon the whole, we have been greatly disap-

pointed in this prize Essay, and we do not apprehend, that Mr. Bingham will gain much, in any way, by its publication. We do not think that any but hospital surgeons, or those in very extensive private practice, should take upon themselves to write on such subjects as those contained in the volume before us, unless, as professed compilers. We object, also, to the manner in which our author has stated his cases. They are all, or almost all, unauthenticated by names, dates, or places—an omission which no writer ought to make, unless, on some very particular occasions, where the names of the parties could not, with propriety, be revealed. We should suppose, that no such very great delicacy was necessary in the majority of cases introduced in the work under consideration.

VII.

Quelques Considerations sur le Prurigo Formicans. Par M. ALIBERT, premier Medecin Ordinaire du Roi, Medecin en Chef de l'Hôpital St. Louis, &c.*

OF all the organs of the human body, the skin presents not only the most extended surface, but the greatest variety of sensations, and consequently of pains. It is on this account, that each cutaneous malady produces its own mode and degree of suffering—but prurigo outstrips them all, in the intolerable misery which it inflicts on its unhappy victim.

This dreadful disease attacks all ages, but especially the two extremes of life—it spares no constitution—respects no class of society. Crowned heads have suffered from this terrible scourge. Men of letters, artists, and those of the legal profession, have, in M. Alibert's experience, been those most subject to prurigo, especially in the decline of life. Our author has seen it congenital, and continue during the whole lives of the unfortunate patients. He has seen three brothers in one family condemned to this malady for life! An inexperienced surgeon who had been first called in, mistook the disease for itch, and lavished his "pomades anti-psoriques," which only exasperated the evil. It is of great consequence, M. Alibert observes, not to commit this mistake. The various distinctions which authors have made of prurigo, M. Alibert is not inclined to adopt, or even admit. It has received clas-

* *Annuaire Medico-Chirurgical*, Vol. 1.

sifications according to its degrees of force—according to the periods of life when it occurs—and, even, according to the parts where it is situated. Hence the terms *mitis*, *ferox*, *infantis*, *senilis*, *prurigo podicis*, &c. which have been assigned to the varieties of the disease. M. Alibert divides *prurigo* into two varieties only—*P. formicans* and *P. pedicularis*. It is to the *former* variety he here directs his attention, reserving the latter for a memoir in the second volume of the work before us.

Description of P. Formicans. No language can convey a complete idea of the sufferings which M. Alibert has witnessed from this disease, within the walls of St. Louis. Every minute of the day and night the patient is a prey to this indomitable *pruritus*—the characteristic feature of the complaint. A devouring fire seems to consume him; and to allay the irritation he tears the skin with his nails—vain effort! the pruriginous sensation is redoubled—and some are thrown into a state of delirium by the inexpressible itching. One man put a pistol to his head, unable, any longer, to support the weight of existence.*

In most other diseases, time reconciles us, in some measure, to pain, and blunts its acuteness. Not so in *prurigo*. Time produces no alleviation. Nothing, but some important corporeal occupation, can at all render the patient less sensible to the irritation. Solitude and reflection increase it ten-fold. There is no other sensation that so well conveys an idea of the irritation produced by *prurigo*, than that of a million of ants swarming over the skin. In this complaint, there is usually an exacerbation of the burning and itching at bed-time, and at three o'clock in the morning. At the latter period, however sound the sleep, the patient is suddenly awake, and his nails go unconsciously to work in tearing the irritated surface. The expressions which patients sometimes make use of to des-

* It has often struck us as a remarkable fact, how rarely we see suicide committed by those who labour under the most painful and tedious diseases, as cancer, calculus, and organic diseases of internal organs; while we, every day, see the said dreadful crime committed, by those who have no real suffering to endure, or only some slight mental inquietude to provoke the act. We think, that this, in itself, is a proof that some intellectual aberration is always at the bottom of suicide. No animal commits this crime—nor man neither, while he obeys the impulses of Nature and Reason. In those countries where a horrible superstition induces men and women too, to devote themselves to voluntary death, Nature and Reason are overcome by Fanaticism for the time; or, as in the case of the Hindoo wife, the fear of ignominy triumphs over the fear of death, which all Nature, more or less, abhors.

cribe their sufferings, are very remarkable. One man compared his situation to that of the martyrdom of St. Lawrence, while grilling on the gridiron! "Dans un tel état d'irritation, les organes même qui sont muets dans un âge aussi avancé, entraînent dans une érection forcée, d'où il résultait des pollutions involontaires."

In general, the prurigo declares itself at first, by an ardent itching between the shoulders, over the sternum, anus, abdomen, and thighs. The patient begins to scratch; but the more he scratches the more intense becomes the itching. On examining the parts at this time, there will be found a number of exceedingly small papulæ, slightly accumulated, but containing no fluid in their interior. These, when scratched, become covered with a little scaly crust the size of a pin's head, and of a brown or blackish colour. This crust, which is detached in a short time, appears to be formed by a slight sanguineous or serous exudation, elicited by the friction.

The intensity of the pruritus varies considerably according to circumstances. It is more pungent when the person is warm—in the evenings—night—after eating—after working. Even the friction of the clothes is generally sufficient to re-excite the itching, after a temporary cessation. This disease has, sometimes, intermissions of three or four hours—especially while the person is eating, or engaged in any laborious occupation. Sometimes the intermission lasts but five or six minutes. Our author knows a man, 55 years of age, and otherwise robust and healthy, who is subject to prurigo in the soles of the feet. This affection seizes him so suddenly, and so completely masters him, that, whether he be walking the streets, or in the midst of company, he is forced instantly to strip off shoes and stockings, and rub his feet against any thing that is near him. This proceeding he is unable to resist, were he in the presence of Napoleon or the Grand Monarque! He knows another patient similarly affected, who finds no ease excepting by walking about till he is quite fatigued. When these paroxysms take place, he roams about the fields and high-roads like a crazy person. He has got the name of the "*wandering Jew*," in consequence. The most distressing prurigo is that which attacks the genital organs in both sexes. It is accompanied by a host of secondary symptoms, which are variously modified, according to the idiosyncrasy of the individual. When it attacks the clitoris, it is a dreadful disease indeed. Our author knew an unhappy female who could obtain no respite from this affliction, but by keeping cloths, constantly wetted with the coldest water, to the parts.

When prurigo attacks old people, it is an inexorable malady. In them, he has known it produce tinnitus aurium,
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weakness of sight, cramps, lassitudes, spasms in the stomach and other parts, tension of the epigastrium, derangement of the digestive organs, emaciation, and a state of cruel despair. Some of these experience a temporary mitigation of their sufferings while gorging themselves with food, or swallowing alcoholic liquors, immediately after which their remorseless enemy again assails them.

In prurigo formicans, the muscles are sometimes so irritated, that they swell, stiffen, and become so prominent under the skin, as to be distinctly traced on the upper and lower extremities. But it is more particularly on the lymphatic system that the ravages of the disease are directed. Most of these unfortunate patients sink, ultimately, under serous infiltrations, which take place in all parts of the system. A man of the name of John Mazuc, was lately in the St. Louis, for this complaint. He was in the 65th year of his age, and had always led a wretched kind of life. During the last eighteen months, he had been afflicted with prurigo formicans, in a violent degree, especially about the shoulders, arm-pits, and front of the chest. The pruritus ceased suddenly, in consequence of an unexpected chagrin of mind. All at once, his arms, thighs, legs, and face became tumefied—his breathing oppressed—and his bowels affected with diarrhoea. To these succeeded alarming faintness; but the symptoms were relieved by the prompt application of blisters. Three days afterward, the prurigo re-appeared, and the tumefactions subsided. He found himself so well in a few days that he left the hospital; but died shortly afterward of hydrothorax.

The effects of prurigo on the intellectual system are not less remarkable. There has been, for a long time past, at the St. Louis, a man, in whom prurigo alternates with mania. When he first entered the hospital, he was in his right senses; but, then his whole body was covered with the pruriginous eruption. One morning, it was observed that his skin was become quite natural, and completely free from a chronic eruption of long standing—but he was so delirious, that it was necessary to confine him by means of a strait waistcoat. He laughed immoderately—asserted that he was a literary character of great celebrity, and that his name was VOLTAIRE. When the skin becomes re-affected the maniacal hallucination disappears.

The terminations of prurigo are not always the same. When the disease is not very intense in degree, and when it affects the tender skin of females and children, it often vanishes, without leaving any trace of its previous existence. But if the disease has continued long on a hard and tough skin, as on that of old people, the epidermis becomes exfoliated, like

the skin of a serpent, or acquires a coriaceous density—a sure sign of an incurable disease.

M. Alibert gives the particulars of three dissections of this disease; but the only phenomena peculiar to the prurigo, were serous infiltrations in various parts of the body. The other morbid lesions could not, we think, have any connexion with the disease under consideration.

Our author justly observes, that it is the melancholy privilege of man to transmit to his descendants his corporeal infirmities. Almost all the cases of prurigo formicans, in M. Alibert's experience, could be traced to a hereditary taint. He observed, that those of fair, transparent, and diaphanous skins, are more liable to this disease, than those whose skins are brown, whose muscular fibres are vigorous. Our author has been able to ascertain, as far as proofs in medicine can be obtained, that the production, or, at least, the developement, of prurigo is sometimes owing to suppression of natural discharges—especially the menstrual. He met with one case of *intermittent prurigo* in an infant, the accessions of the disease taking place every time the mother approached the menstrual periods.

Prurigo appears sometimes to be the crisis of another disease. A man who had been laboriously employed in hay-making during a very hot day, was seized with pharyngeal angina, which assumed a chronic form. In three months this disease disappeared; but a pruritus was felt at the edge of the anus, to which succeeded a general itching all over the surface of the body, with the developement of a crop of small tubercular eruptions under the skin. These continued a month, and then disappeared on the breaking out of bleeding hæmorrhoids.

The external causes of *p. formicans* are, according to Alibert, sufficiently numerous; over-exertion, fatigue, watching, &c. disturb the circulation, and frequently give rise to this terrible disease. A man, whose occupation was to conduct the flotillas of wood on the Seine, had a release from the malady, whenever he kept a few days quiet in the St. Louis; but a new accession of it, every time he resumed his employment. The same was observed in the case of a courier, who had prurigo whenever he travelled, and an intermission whenever he kept himself quiet. Living in damp and badly ventilated habitations, the abuse of spirituous liquors, the use of salted and unwholesome provisions are causes of the disease more powerful than avoidable. Almost all the male patients in the St. Louis are men of an idle disposition, who spend the greater part of their time in cabarets, and daily violate the rules of good regimen. It would appear indeed

that the disease itself generates a disposition to indulge in hurtful things. Our author has known the disease called forth by vivid moral impressions. He states the case of a female who, by the death of her husband, fell from affluence to indigence. A severe attack of hæmoptysis was the first consequence of the mental affliction, and this terminated favourably by suitable treatment in six weeks. Her convalescence was slow, and interrupted by pains in her limbs, and excessive perspirations. The menses now became suppressed, and immediately prurigo formicans was developed on the trunk of the body, and the nape of the neck. The itching was dreadful; but the disease was at length removed by emollient baths.

Treatment. The remedial indications in this disease are founded on very uncertain bases. Art is yet in its infancy as far as regards the cure of prurigo formicans. The disease is but too often confounded with psora, and the means had recourse to are generally prejudicial. When prurigo is purely accidental—when it attacks vigorous subjects—and can be traced to evident external causes, it may be cured by emollient baths and a cooling regimen. But when it attacks old people, we are foiled. It is scarcely less obstinate when it occurs soon after birth. Our author has known many children in whom the disease persisted till the age of puberty. When prurigo is caused by the suppression of some accustomed discharge, it is much more easily cured than when owing to a more profound and inveterate origin—provided too active repellents are not employed, by which we risk the transference of the irritation from the periphery to the brain. Mental alienation is a common consequence of this metastasis. A young female was affected with prurigo from her infancy, which obstinately persisted, in spite of every means that could be devised. At length she was persuaded to apply the anti-psoric liquor of a celebrated medicaster of Paris. The eruption was suppressed very promptly indeed; but since that period Mademoiselle has not enjoyed one moment's repose. She is tormented with a feeling of extreme formication all over the cutaneous surface, but without any perceptible eruption. M. Alibert, at the time he wrote, was prescribing the warm sulphureous baths, with the view of restoring the papular eruption too suddenly suppressed.

M. Alibert offers a few laconic rules for the treatment of this troublesome complaint. When a patient first applies, he recommends that the *primæ viæ* should be well cleared—for which purpose an emetic is often a proper remedy. After purging, the patient is to be put on a course of diluent and

aperient drink, as whey, barley-water, &c. The regimen should be particularly attended to. Nothing but the simplest food should be allowed. All salads and spices must be interdicted. The juice of bitter and diuretic herbs is useful. The patient should go daily into an emollient bath, after the example of the ancient Romans, who used oleaginous baths. He has known children cured by daily baths of warm milk. Excepting some mild ointments, containing the precipitates of mercury, M. Alibert seems averse to all external applications.

We shall only add a few observations from Willan's costly work, which is not likely to be in the hands of the majority of our readers. From alkaline medicines he has seen some relief obtained; but he has generally prescribed sulphur internally, every morning and evening for a fortnight, in doses varying from ten grains to a drachm. In some cases the sulphuric acid may be taken with advantage, after the sulphur is left off. Dr. Willan has often prescribed the sulphur combined with the fossil alkali, (natron preparatum,) at the same time directing an infusion of sassafras, or the tops of juniper, to be drunk freely. Under this course, the symptoms are, in many cases, gradually alleviated, and the complaint disappears in a month or six weeks.

Dr. Willan seems to have little faith in any other external application than the warm bath, or the same impregnated with alkalinized sulphur. Sea bathing has also, in some cases, entirely removed the complaint, as was long ago observed by the medical poet, Q. Serenus Samonicus.

"Pruritus autem salsos levat humor aceti ;

"Sive maris rabidi sudor, cochleæque minutæ,

"Quarum contactu perimetur acerba libido."

Precepta, cap. 7.

VIII.

Illustrations of the Inquiry respecting Tuberculous Diseases.

By JOHN BARON, M.D. Physician to the General Infirmary at Gloucester. Octavo, pp. 236, five plates, coloured. London, Dec. 1822.

THROUGHOUT the preface to this volume we think we can perceive a tone of querulous animadversion on modern medical investigations—on the modes in which researches are carried on—on the validity of medical testimony and medical

records—on the claims to improvement which the moderns have set up over their forefathers—and on the want of logical precision in our language and reasonings. That there is room for complaint, and still more for regret, on all these points, we are ready to acknowledge; but as the cause of these evils lies more in the difficulty of the subject than in the negligence or incapacity of the investigators, we cannot join in this declamation against the latter. We are really tired of the exhortations to medical logic and mathematical precision, when the *things* themselves are but imperfectly known, (many of them totally unknown,) and where language and terms must alter with every advance or discovery, whether of error or truth. Let these complainers look at the science of chymistry, which may be termed an exact science. How often have the theories, the terms, and the language altered and vacillated, even in the short space of twenty or thirty years! The science of medicine is a thousand times more difficult than that of chymistry, because we have not only the laws of physics, but the laws of life to study—most of the latter entirely beyond our ken, and few of them as yet understood. Again, as it is only from those who are engaged in the busy scenes of actual practice that we can hope for improvements in medical science, how are we to expect all that rigid mathematical exactness and logical precision which are the products of intellectual labour in the cabinet, rather than the offspring of observation at the bed-side. We consider it indeed as yet the age for accumulating facts, rather than for arranging deductions; and therefore we firmly believe that hypercriticism on the modes of recording those facts and observations which serve as the basis of our science, is more calculated to retard than to accelerate its progress. We confidently appeal to all those who know the difficulties of medical investigations—the drudgery of practice—the shortness of time—the anxieties and distractions of life—and the thousand obstacles to abstract reasoning, whether one in a thousand can either prosecute or profit by studies attended with such exquisite refinement, mathematical correctness, skeptical scruples, and laws of logic, as a few modern reformers are labouring to introduce upon all occasions, whether of theory or practice.* This much we know, that it is labour

* Even the "great Haller," whom our author has eulogized, (and we wish not to detract from his merits,) was evidently convinced that *very few* indeed could proceed on these nice steps so warmly recommended by himself and our present author. We give the quotation which Dr. Baron himself has brought forward. "*Est in his omnibus ars quædam inveniendi, quæ breviter dici non potest, et quam paucis mortalibus natura concessit.*" Oportet

in vain. They are incapable of effecting the refinements they propose; and if they were, they would have few disciples among the great mass of the profession. We confess it, (perhaps it ought to be with shame) that we are among those who are not "too fond of the right to pursue the expedient;" for we have rarely seen any practical good result from attempts to carry this "*beau idéal*" into execution. It must be by patient industry, close observation, and plain philosophizing, that medicine can be rescued from empiricism or conjecture.

"How different," says our author, "were the feelings and principles which actuated the minds of some of the distinguished men who have, in times past, successfully cultivated either physiological or pathological science, from those which are most generally adopted at the present day." P. xxi.

We much doubt whether our forefathers had a bit more zeal, or better means, or honester intentions than ourselves. True it is, there were fewer writers among them, from their being compelled, in general, to write in a learned language; consequently there was then a great deal less of the trash which now daily issues from the toiling press. But, on the other hand, there was far less attention paid throughout the great mass of medical society, in those times, to *pathology*, which, as connected with close observation of symptoms at the bed-side, must form the firm basis of all our useful knowledge.

We shall now quit this subject, and endeavour to convey to our readers as clear an analysis of the work before us as we are able—and that without prejudice or partiality.

This illustration is divided into six chapters, three of which, viz. the first, second, and sixth, will principally occupy our attention—the other three being chiefly a series of criticisms on modern and ancient writers. The first chapter is "on the Progress of Pulmonary Tubercle;" and, as our author thinks that it will facilitate the understanding of what he has here to advance, if he briefly recapitulates some of the propositions set forth in his printed "Inquiry," we shall give the recapitulation in his own words.

"First, then, I affirm, 'That tubercles exist in almost every

abeque prejudicio ad opus venire, non eo animo ut videas, quæ classicus auctor descripsit; sed ea cum voluntate ut ea videas quæ natura fecit." Now we firmly believe that the modern physician comes to the interrogation of Nature with *fewer prejudices* than did the ancient; besides the advantages of an accumulated stock of knowledge transmitted by record.

texture of the body, and that their origin and essential character will probably be found to be the same, wherever they are discovered.*

"II. That tubercles in their commencement, are small vesicular bodies, (i. e. hydatids,) with fluid contents.†

"III. That these bodies subsequently undergo transformations, on the nature of which their tuberculous character depends; that these transformations are progressive, but not uniform, and that it is only in the larger bodies of this kind that they can be accurately traced. That they commence with an opaque spot, which advances with different degrees of rapidity, and ultimately converts both the contained and containing parts into substances very different from what they were at first.‡

"IV. That on the size and relative position and structure of the tubercles, which are thus formed, depend the characters of many of the most formidable disorganizations, to which the human body is exposed.§

"V. That considering the transmutations, which these bodies undergo, the condition in which they may be found will be modified by the time at which they may happened to be examined.¶

"VI. That it is rarely that we can have an opportunity of seeing the first steps of these morbid phenomena in the human subject, because the tubercles are generally formed, and the elementary character of course lost, before death permits us to make inquiries respecting altered or morbid structure.¶

"VII. That some tumours are formed by the aggregation of tubercles, and that the characters of such bodies are materially influenced by the relative position and contents of the elementary parts, of which they may happen to have been composed, or in other words, that 'varieties in the arrangement of the elementary parts of morbid growths will, of course, cause corresponding varieties in their appearance.'^a

"VIII. That, therefore, diversity of appearance in tubercles or tumours does not imply diversity of origin, for it has been demonstrated that substances and textures of very different properties may be found even within the same cyst, thereby merely denoting different gradations in the changes, to which these bodies are liable.^b

"IX. That the disorganizations above referred to are not the product of any species of inflammation, and that though inflammation may attend their growth, and modify the symptoms, which they occasion, yet that it is very different both in its origin and consequences from that species which attacks a part unaltered by previous disease; that in the first instance it is to be considered as the consequence, and in the latter as the cause of altered texture."^c

It is necessary to bear in mind that the morbid appear-

* Vide Inquiry, p. 75.

† Id. p. 215.

a Id. p. 218. *et cetera loc.*

† Id. p. 214.

¶ Id. p. 217.

b Id. pp. 221, and 231.

‡ Id. p. 93. *et cetera loc.*

¶ Id. p. 241.

c Id. p. 120

ances may be very different, according as a small or a great number of tubercles are evolved. In the *former* case they generally attain a larger size than in the *latter*—and then they may either produce a vomica, or a tumour, or both. In the *latter* case, (where a great number are evolved,) if they advance simultaneously, no one can much outstrip the other in growth, in which case we usually see a great number either approximating or in actual contact, and with qualities varying according to the nature and period of their progress—and it is this progress in the common tubercular phthisis, that we are now to attempt to trace.

In the earliest stage of pulmonary tubercles they are incognizable by the touch, on account of their delicacy and elasticity; but they are visible as small vesicular transparent bodies shining amid the unchanged surrounding texture.

“Should any of them happen to have been generated on the surface of the membranes, they there may be seen clustering together, and resemble both in size and general character the beautiful globular incrustations, which beset the stalks and leaves of the ice plant.” P. 10.

In the human subject it is rare that tubercles can be seen in this their primitive state; but only at a somewhat later period of their progress. At this period the softness and delicacy of the vesicle is lost, its transparency diminished, and its size increased. On examining the lung where they exist, a distinct granular sensation is communicated to the fingers.

“The progress from this period is evinced by an augmented size, a firmer texture, and a complete loss of transparency, a yellow opaque body being perceptible. In this state they sometimes fall into ulceration and prove fatal. But before such an event takes place, it occasionally happens that many of them advance further, and exhibit other appearances. Except where they are in contact with each other, they go on increasing in bulk. The coats of some become thick and hard, and almost cartilaginous; while their contents may vary both in colour and consistence. Others proceed in a different way, and are condensed into solid bodies of an uniform texture, the cysts and the containing parts being scarcely discernible from each other.” 11.

The appearances in those who die in this state are as follow:—some tubercles will be found firm and solid—others with thick dense coats, containing curdy, cheesy, or purulent-looking substances: others, again, will appear partly destroyed by the progress of the ulceration, exhibiting only a firm, almost cartilaginous remnant of emptied cyst, conspicuous among the surrounding disease. “Should a great

number of contiguous tubercles have fallen into this state, deep and extensive and irregular-shaped fissures and excavations are thereby formed."

"In the progress of the tuberculous disease, there are corresponding changes in the surrounding lung, which it is necessary now to note. At the first developement of tubercles, whether in the lungs or elsewhere, the surrounding texture seems to undergo little or no alteration. The lung retains its fresh pink colour, and its light elastic feel, and there appears to have been no interruption either to the circulation of the blood or air.

"As the tubercles increase in size and in density, and approximate each other, they cause greater disturbance in the system. The blood is impeded in its circulation, and respiration is of course rendered quick and laborious on slight exertions. The consequences are obvious, the lung becomes firmer and of a darker colour, and ultimately exhibits that appearance, which has been supposed to be indicative of a particular species of disease."* 13.

This dark and indurated state of lung is occasionally obliterated by the increase and coalescence of tubercles into a dense and solid structure, with here and there a trace of the original tuberculous character, to the total exclusion of every thing like the pulmonic texture.

"The changes of structure above described, are indicated by corresponding symptoms. Tubercles, in their incipient state, may exist without producing much disturbance in the system, and they may pass onwards toward consolidation, if they be not very numerous, without affording almost any signs of their existence; and in this consolidated state they may continue, and not in any material degree tend to abridge life. The unexpected occurrence of solid tubercles or tumours in the lungs of those, who had not previously manifested any symptoms of such disease, bears me out in this assertion. When tubercles are fully consolidated, there is the strongest reason to believe that they do not subsequently fall into a state of suppuration. This occurs chiefly in those that were not destined to arrive at this point.

"The consolidation therefore just referred to, may in some measure be considered as a favourable termination to tubercles, as life has been found to be compatible with their existence, except in cases where they occupied a large proportion of the lung, or produced accretion of the membranes. It is in that period of their progress, which is intermediate between the state last mentioned, and their first developement, that all the symptoms, characteristic of tuberculous phthisis occur. This will be apparent by attending briefly to the ordinary progress of the disease." 15.

It is well known that, in a person who has tubercles, we

* Hepatization.

find cough at intervals, without expectoration, but with occasional oppression about the chest, and hurried breathing on slight exertions.

This state may exist, at intervals, for many months, or even years, without any other sign of disease. A catarrh may increase these symptoms, or render them more permanent, and then some yellowish or whitish expectoration may appear, mixed with blood—or a gush of blood may precede the occurrence of expectoration. Our author has known this hæmorrhage repeatedly happen and ultimately prove fatal, where there was great consolidation of the pulmonary tissue by tubercles, and yet, where there was never any expectoration of the tubercular matter itself. It is from this, and other kindred cases, that he infers, that tubercles, once consolidated, do not subsequently suppurate or ulcerate.

Such expectoration as above described is, he thinks, a sure token of a tuberculous disease. One of them has given forth its contents, and more may do the same thing, though at intervals more or less extended, with proportionate recoveries for the time being. There may even be ultimate recovery after successive events of this kind, showing, Dr. B. thinks, that there either were not a great number of tubercles in a state to undergo the ulcerative process, or that the tubercles were brought by accident or treatment into a quiescent state, and subsequently consolidated. It is comparatively seldom, however, that this termination is obtained either by nature or art.

Our author observes, that the matter expectorated is of different kinds—that from excited mucous surfaces being different from the contents of a tubercle—and this last differing materially from the purulent secretion that issues from the ulcerated internal surface of a tubercle after it has discharged its contents. The appearance of pus, therefore, by no means necessarily indicates the presence of tubercles, “as is generally supposed.”*

The dark-coloured induration of the lung before alluded to, does not attend tubercles in their early state, though it more or less accompanies them as they advance. It readily falls into decay when the enveloped tubercles are undergoing a process of dissolution. When this induration occurs to any extent, it occasions or increases the difficulty of breathing,

* We are not aware that medical men generally suppose that where pus is, there a tubercle must be. Nothing can be more common than the knowledge that pus may come even from an unbroken surface, when it is strongly excited.

and there is generally a livid appearance about the lips and countenance.

Great variety occurs in respect to pain. Sometimes there is little or none throughout the disease—"at other times the disruption of every successive tubercle seems to be accompanied by deep-seated and acute darting pains."

"Tubercles in the pleura cause sometimes effusion into the cavity, more frequently accretion. When the latter event takes place, there is cough and dyspnoea and a rapid pulse, but no expectoration. But when tubercles in the lungs, in a state of ulceration, are added to it, we have, in conjunction with the symptoms already enumerated, the expectoration of tuberculous matter, hectic fever, &c. The mode of breathing in cases, where accretion of the pleuræ has taken place, is different from what it is when the lungs are free within the cavity. In the first mentioned instance, 'the shoulders are drawn forwards, the ribs do not move as in the natural state, the whole chest heaves at once; and most of the muscles on the trunk of the body seem to be called into action.*' On striking the chest of a person in this state, the sound emitted is like that produced by the percussion of a solid body, very different from that which a healthy chest affords, or when disease exists in the lungs without accretion of the membranes." P. 21.

When a patient happens to be cut off by another disease, before the tuberculous affection has run its usual course, the same lung will sometimes present examples of all the progressive changes which our author has described in this, and his preceding Inquiry. An interesting case, in illustration, is given, and a plate from the same subject.

It is impossible to describe all the varieties of appearances which may arise from the peculiarities in the structure and arrangement of the tubercular masses; but there is one which is so very common, that it requires to be noticed. It occurs when tubercles, originally soft and circular, grow in size, and mutually press upon each others' boundaries. The globular character is thereby destroyed, and the divisions between each, so far as they can be traced, are angular, so that instead of circles, we have squares or figures of different kinds.

The extent to which tuberculous diseases may proceed without producing symptoms of pulmonary consumption, is much greater than could, *a priori*, be expected. Our author relates the case of a lady, who never exhibited any signs of pulmonary disease, the symptoms being rather those of an affection of the stomach and stricture of the œsophagus. Some weeks before she died, she was seized with symptoms of pneumonia.

* "Inquiry, p. 170."

Very frequent and large bleedings produced little effect. She expectorated very freely, but the dyspnoea became distressing, and she died. On examining the lungs, he found strong, but unlooked-for proofs of long existing disease. Almost the whole posterior portion of each lung was transmuted into a dense and nearly cartilaginous substance. Where the density was greatest, there the character of tubercles was obliterated; but it gradually re-appeared as they receded from this point, till, at last, their figure and boundary became perfectly distinct. All these appearances are accurately portrayed in the fifth plate. Two dissections are here given, showing the progress of tubercles, from the smallest forms to the largest, in the pleura, liver, mesentery and peritoneum.

CHAP. II. This is on Tuberculous Diseases in the Inferior Animals.

Hitherto, in the present work, our author has kept out of sight his opinion respecting the *hydatidical origin* of tubercles, because, he was desirous that any degree of doubt which might still be attached to it, should not be permitted to obscure what may be demonstrated to occur in the *progress of tubercles*. This opinion, however, he has occasion incidentally to allude to, in tracing tuberculous diseases in inferior animals. Our author has selected the principal part of his descriptions from the work of M. Dupuy, an eminent French veterinary surgeon; his testimony being the more valuable, he observes, because it is, in a manner, extorted from him by irresistible evidence, in direct opposition to the main tenour of his work.

The *glanders*, as it is vulgarly called, is strictly a tuberculous disease attacking the lungs of the horse, and bearing the closest analogy to pulmonary consumption in the human subject.—*Farcy*, Dr. B. observes, is likewise a disease of the same genus, affecting another part of the animal. In *glanders*, the morbid appearances are not confined to the lungs. The nasal cavities and the lymphatic glands, in many parts of the body, are also generally diseased.

We shall extract the following case from Dupuy, as our author thinks it bears strongly on his doctrine of the hydatid origin of tubercles.

“A cow, six years of age, was killed on the 2d of February, 1819. The body was examined immediately, and the following appearances were found. The pulmonary tissue was very much altered. It contained many cysts, enclosing hydatids of different magnitudes, from the size of a pea up to that of a goose's egg. Other cysts, of which the coats were of the consistence of cartilage, and even osseous, were filled with a substance analogous to that of bone;

those which enclosed the hydatids were smooth, and had the appearance of a mucous membrane. We thus found in these lungs hydatids and tuberculous matter, which would seem to prove, that these bodies, though very different in their physical qualities and their organization, have many affinities in common, in regard to the causes which determine their formation, and the manner in which these bodies alter the pulmonary tissue."* 47.

We shall not enter upon the train of commentaries which Dr. Baron has made on the above, and some other analogous cases. We cannot but think that comparatively few readers will feel interested in them.

Among domestic animals, none are more frequently affected with tuberculous diseases than sheep: and it was from these animals that Dr. Baron drew many of his descriptions in his former work. M. Dupuy has given many cases of this kind, from which our author has selected a few, and they will be found in page 60 of the Illustration.

Farcy has been thought, and apparently, with justice, to bear the same relation to glanders, (which is the tuberculous phthisis of the horse,) that scrofulous affections of the extremities bear to the same disease in the human subject. Dr. B. thinks, that Farcy is unquestionably connected with that condition of the system which gives rise to the formation of tubercles, whether in the lungs or elsewhere.

"Farcy seems clearly to be generated by disease of the lymphatics of the limb. The buds, as they are called, appear at first in the shape of small tubercles or buttons, which have the same organization, and go through the same changes that mark the progress of tubercles in the lungs. This disease seldom confines itself to the extremities. It generally advances toward the chest, attacks the membranes of the nose and lips, the glands under the jaw and in the neck, and finally develops itself in the shape of tubercles in the lungs, and then it constitutes the glanders. This, however, is not to be considered as the usual progress of the last-named disease, for it often begins in the lungs, and runs its course without any appearance of farcy whatever." 61.

In the third chapter, our author goes back to the father of physic, and, in the writings of the divine old man, thinks he sees almost all the knowledge of the moderns.

"The whole of what he has said respecting the diseases of the chest, bears wonderful testimony to the extent and accuracy of his observations, and it probably may demand all the knowledge that modern inquiries have unfolded, to enable us to do justice to his labours." 64.

* "De l'Affecton Tuberculeuse, par M. Dupuy, p. 269."

Our author has discovered, what was never denied, that Hippocrates used percussion and auscultation in exploring diseases of the chest. He seems in admiration at the extent of the Coan sage's knowledge when he points out the existence of tubercles in the ox, the dog, and the swine, what every butcher's boy in the island of Cos knew as well as Hippocrates. The divine old man's theory of the formation of tubercles from bile or pituita, our author considers as not a fair subject of criticism, therefore we shall say nothing on that head.

"It is quite sufficient to prove that he was aware of the existence of such bodies, and of the consequences they produce." 64.

Now if Hippocrates was so well acquainted with the existence of tubercles, and the consequences they produce, he ought certainly to be acquainted with the *symptoms* which they give rise to. We ask Dr. Baron what kind of tubercle, and what stage of it, gives occasion for the following symptomatology of Hippocrates?

"Tuberculum in pulmone. Quum tuberculum in pulmone natum fuerit, tussis tenet et erecti cervicis spiratio, et dolor ad pectus acutus, et ad latera et usque ad quatuordecim dies ita afficitur. Nam plerisque per tot dies tuberculi affectio inflammatur. Sed caput dolet, et videre non potest, et corpus subvulvum fit, ac venis impletur." *De Morbis II. L. 1.*

We believe it would puzzle Dr. Baron or any other admirer of Hippocrates to find out what this fourteen day tubercle is which takes away the sight, and works so many other strange miracles. Our edition of Hippocrates not being the same as Dr. Baron's, we are unable to follow him through his numerous quotations, without a trouble which would be very badly repaid. Dr. Baron, if he wished his arguments to have as much effect as possible, might have avoided the pedantic display of so much Greek, and given the Latin version of Hippocrates, which would have been more generally understood. It is not, however, of very material consequence; for we apprehend the work will have a very limited circulation, except among the higher class of pathologists.

Dr. Baron considers it a remarkable thing that so few of the older writers should have mentioned these observations of Hippocrates. They are obscurely referred to by Galen, and entirely passed over by Celsus. In this we think they showed their sense. There is no reason to believe that Sydenham had any accurate knowledge of tubercular consumption. In fact, we much doubt whether Sydenham ever opened a body in his life, with the view of ascertaining the seat of a disease—at least we have never seen any indication of post

mortem researches in his works. It is rather more remarkable, however, that Boerhaave has no allusion to them in his aphorisms. Even Fothergill (*Med. Obs. and Inq.*) makes no mention of tubercular disorganization in his pathology of consumption. The following passage from the 38th epistle of Morgagni, makes it evident that the Italian pathologist had some opinions respecting the hydatid origin of tubercles corresponding with those of Dr. Baron.

“ ‘Finally,’ he observes, ‘read over again what I have formerly written to you, of hard granules or tubercles being prominent on the internal surface of the peritonæum or pleura; as water was even then extravasated in the great cavities, which those membranes surround, you will certainly find the series of successive changes, which I have described. It happened some years ago in a woman, that had been taken off by ascites; the external coat of the intestines was found to be distinguished with very frequent tubercles. Part of the small intestines was brought to me, that I might judge what these tubercles were. When I first examined them, they resembled small turgid lenticular glands; but they were without an orifice and solid, and seemed to be made up neither of a glandular nor of a fleshy substance, but to be of a middle nature, as it were, betwixt both. I judged that I could determine on nothing more probable with regard to them, than to suppose that they were the remains of ruptured hydatids contracted into themselves, but not to so great a degree at present as to be dry and hard.’ ” 73.

As we fear we shall not be able to give such an account of the work before us as may be satisfactory either to the author or reader, (since it is almost entirely a tissue of medical polemics,) we shall here insert an extract, showing Dr. Baron’s matured creed and doctrine on the subject under review.

“ On the whole, from the most attentive consideration of all that has been adduced now, as well as in my Inquiry, respecting peritonæal tubercles, or those which may be found in any other part, different though they may be in size and appearance, there can, I think, be no doubt as to the identity of their origin. All the general remarks which were formerly delivered, when we were treating of pulmonary tubercle, are applicable to kindred disorganizations, when they occur in the abdomen. A small number spread over the peritonæum, or in the mesentery, may exist without doing much injury: A greater number may produce universal accretion of the viscera, the extinction of the nutritive process, and a complete impediment to the functions of the alimentary canal. Should one or more of them grow from the ovaries or the uterus, or any other portion of the abdominal surface, they may increase till they attain a very great size, and then we may either have what has been denominated encysted dropsies, or ovarian dropsies, or tumours with different contents, and of different shapes, according to the transmuta-

tions which the hydatids may have undergone, or their collocation in the diseased structure. Again, should these bodies take their growth in any of the viscera, a series of the same changes may be detected, but the symptoms and the appearances will, of course, be modified by the part where they may happen to be generated." 79.

Into the 4th and 5th chapters, occupying nearly 120 pages, we shall not enter. They are entirely composed of criticisms on Bayle, Lannec, Broussais, and Abercrombie. Dr. Baron weighs the opinions, statements, and even the words of those who come before his tribunal, with a balance so nice that we verily believe it would turn with the twentieth part of a minim of hydrogen gas! Heaven help medical authors, if Dr. Baron should ever conduct a medical review! He would grind them into dust. And, after all, for the life of us we cannot discover of what material consequence it is, whether a tubercle be originally a hydatid or a bit of cheese. We know that sometimes it grows larger, sometimes it remains stationary; sometimes it continues hard, sometimes it gets soft; sometimes its contents remain encysted, sometimes they break into the bronchia and produce purulent expectoration; sometimes these cavities heal, but much more frequently they continue to discharge, like an ill-conditioned ulcer, till death closes the scene. These things we know, and these things it is useful to know; but to enter into whole volumes of disputes respecting the origin of tubercles, (which, like the origin of all things, is veiled in mystery,) seems to us a waste of time that might be far better employed. The only thing of a useful or practical nature which we can see in the discussion is the question whether or not the growth of these tubercular disorganizations depends on a process of inflammation. Even this question does not appear to us to receive any light from the litigated point respecting the origin of the tubercle: Whether it be an invisible hydatid at the first moment of its formation; or an inorganized speck of some unknown material, still the process of its growth is to be decided (at least we think so) by far other evidence than that which is concerned in ascertaining its primitive form or nature. We shall give our author's sentiments respecting the question of inflammation.

"From a due consideration of all the phenomena of this, and other kindred diseases, I contend, that an inflammatory process is not that by which they are generated. There is the most conclusive evidence that cysts and sacs are not fashioned by the effusion of coagulable lymph around a diseased mass, or that the various appearances of these cysts, whether they be thick and firm, or slender and transparent—whether they be ossified, or show no signs of such a state—whether they contain a clear and watery substance, or a

thick gelatinous purulent-looking matter, or be half-fluid or wholly so, or exhibit any of the above enumerated appearances in any variety of combinations—there is, I repeat it, the most conclusive evidence that such occurrences are not the result of any process analogous to inflammation. Further, I maintain, that whether there be one such body, or more than one, whether it be large or small, whether it be attached to the membranes or be imbedded in the brain itself, that all have one origin, and that it is common to the whole class of similar disorganizations in every part of the body." 188.

Our author guards his readers against confounding the growth of tumours themselves, with the effects produced by their presence in the surrounding structures. The latter may be of an inflammatory nature, while the growth of the tumour is of quite a different character. Indeed we have never been able to bring ourselves to the doctrine that the growth of a tumour, not even the pulmonary tubercle, was a species of inflammation. It appears far more probable that tubercles and tumours, especially of the encysted kind, are organized substances endued, unfortunately, with the power of drawing the nutriment of their growth from the surrounding parts, or from the blood itself. And we think it by no means improbable that their original or minutest cognizable form is that of a vesicle or hydatid, which may undergo many transformations in the progress of its growth, according to the structure in which it is placed, and various other circumstances. Nor is this doctrine inconsistent with the fact, that, in tuberculated lungs, every catarrhal inflammation generally accelerates the growth of the tubercles; since it is evident that these last must draw the pabulum of their nourishment and growth from the neighbouring vessels, which vessels will be better able to afford this supply when gorged with blood, than when in their ordinary state of inactivity. The afflux of blood also to a tuberculated lung may act as a stimulus or excitement to that power by which the tubercle carries on its growth. This, we believe, is pretty nearly the doctrine of our author; and we really think that he would have had a thousand times more converts than he has, if he had taken far less pains to prove his point by such endless discussions and obscure reasoning—yes, obscure reasoning; for, notwithstanding all our author's attention to language, and censures on the language of others, we have seldom had occasion to peruse a work which has cost us so much labour to understand, as the one now open before us. We can assure Dr. Baron that, however clear his ideas may appear to himself, he has not the happy art of always rendering them very clear to others. The import of the following passage, however, is sufficiently obvious.

"On the whole, I must repeat it as my conviction, that one grand error pervades our reasoning respecting structural diseases. We identify the changes which arise from the growth of bodies, originally foreign to the healthy structure of the animal, with those which arise from diseased actions of parts, where no previous change of structure had existed, and ascribe the change of structure itself, and the consequences which it induces, to one and the same cause. It was one great object of my Inquiry, to mark the boundaries between these two classes of diseases. It little concerns me, at present, to speak of the origin of the various adventitious bodies which alter the structure of animals; it matters not to what cause they are assigned, provided it be kept clear from those other disorganizations, which are the result of diseases, independent of any previous alteration in the healthy texture," 197.

Our author observes, that ever since the controversy between Ruysch and Malpighi, respecting the minute ramifications of blood-vessels, "inflammatory action" of some sort or kind has been held to be the sole agent in all deviations from the healthy structure of animals. In these respects, he justly remarks, we have doubtless overstepped the boundaries originally assigned to vascular action. The term "encysted abscess," as used by Dr. Abercrombie and others, our author affirms, and with no small show of reason, to be "a contradiction in terms." Dr. Abercrombie, in describing one variety of suppuration in the brain, has called it—"a distinct abscess, confined within a soft cyst, the surrounding cerebral substance being healthy." To this language our author objects, and quotes the authority of Sauvages on the subject. He has no hesitation in affirming that these cysts are to the brain what vomica is to the lungs.

"The cyst, as I have more than once affirmed, is the part that is developed in the earliest period of the disease. It advances slowly in its progress, and may either retain its original character, or be gradually transmuted into a body with very different properties, which produces symptoms and consequences varying according to the structure and function of the part where it is generated." 201.*

Chap. VI. We must now occupy the few remaining pages of the article in the treatment of tubercular consumption, and that class of diseases.

Our author remarks that, in the inferior animals, the cir-

* In the process of softening down of a tubercle, without any thing like inflammation as a mean, our author seems to be supported by the observations of Laennec, who has shown that the liquefaction commences in the centre of the tubercle, where we cannot suppose any vessels go to carry on a process like inflammation.

circumstances which seem chiefly to pre-dispose to the generation of tuberculous diseases, are, cold, moisture, and bad food. In the human subject we cannot doubt that the same agents produce similar effects. It is also but too well authenticated by wide experience, that when the animal frame has been deteriorated, from whatever cause, there is a disposition to transmit to the offspring of such being, whether man or inferior animal, the impaired constitution of the parent. In no class of diseases is the effect of hereditary taint more frequently observed than in pulmonary consumption. From the experiments of Dr. Jenner, detailed in our author's previous work, it appears that we can, by unsuitable food, soon call up a tuberculous disease in rabbits; and it is well known that a wet season and bad pasture will bring into existence the same disease, to a much greater extent, in sheep and other animals. It has also been ascertained that the disease in both cases may be got rid of (provided it has not too far advanced) by a more wholesome diet, and judicious removal from the influence of the other predisposing causes.

Dr. Baron is of opinion that the extent to which it is possible to excite the system to the absorption of morbid growths is much greater than is generally supposed. It is evident to every reflecting mind that our *methodus medendi* must entirely hinge on arresting the progress, or, if possible, causing the absorption of the tuberculous or foreign body, while, at the same time, we counteract the irritating effects of these tuberculous substances on the neighbouring parts. It is only at an early period of the disease we can hope to effect these purposes. Cough, therefore, and any of the other symptoms of pulmonic affection in a scrofulous or phthisical individual, should always cause alarm, and lead us to adopt precautionary measures:—even then it will often be too late, as disorganization, in its primary state, frequently exists without producing much disturbance in the system.

"Since it appears that whatever enfeebles the frame, or deteriorates the constitution, pre-disposes to the diseases in question, how shall we avert this pre-disposition? The answer is apparent: we must do every thing in our power to invigorate and fortify the tender frame; to bring all its functions into a healthy state, and by all means to endeavour to keep them so. But, suppose that this cannot be effected; that the pre-disposition has already advanced to incipient disease; that change of structure has actually commenced; what, in that case, is to be done? We must first seek the absorption of that change of structure; or, at all events, prevent its increase." 216.

What, it may be asked, are the agents by which we may effect this desirable object? We fear they are not very nu-

merous. Mercury and alkaline preparations were formerly believed to be the most powerful deobstruents—and the former is unquestionably useful in many forms of diseases of the lymphatic system; but in pulmonary tubercles its utility is more questionable. It appears to us that one great misfortune in this disease is, that we have, as it were, two contrary indications to pursue. We have to keep up the general system, and yet to obviate the effects of the tubercular irritation, which, in fact, is local inflammation in the parenchymatous structure of the lungs. It is obvious that the same means will seldom fulfil both these intentions. If then we could effect the absorption of the tubercles, we should do all that was necessary to cure the disease, anterior to ulceration. In a former page allusion was made to the connexion between external diseases of the horse, and some of the internal disorganizations, and it was affirmed that farcy bears the same relation to glanders, that scrofulous affections of the extremities or surface bear to pulmonary consumption in men. A practical inference is to be drawn from this connexion. If we possess any means of amending what is termed a scrofulous constitution, or of removing scrofula after it has once shown itself, we have, Dr. B. thinks, sufficient grounds for believing “that what is efficient in regard to an external disorganization may be beneficial in counteracting an internal one.”

“As far as my experience goes, there is no remedy which possesses such powers in promoting the absorption of morbid growths, as the hydriodate of potass. The reports of the influence of this remedy in curing bronchocele, as published by Dr. Coindet, of Geneva, first brought it to my notice. The nature of my own inquiries had led me anxiously to look for some agent of this kind; and having been fully convinced of the affinity between bronchocele and the diseases of which I had treated in my Inquiry, I considered it extremely probable, that a remedy which could remove the first mentioned species of disorganization, might be very beneficial in the others. On this principle I acted; and the result of my trials has fully justified the anticipations which I had formed.” 221.

Some cases are here detailed which we shall notice as the remedy has not, we believe, been tried in this country for the cure of pulmonary tubercles.

The first case was one apparently of *physconia hydatidosa*. The abdomen was as large as that of a woman in the last stage of pregnancy. The tumour, however, had more than once been reduced in size by the long continued use of mercury and Brandish's liquor potassæ, but it was never effectually removed.

“More than once its bulk was very much diminished, by an event which establishes its original character, and justifies the name which I have assigned to it : I mean, the disruption of one or more of its cysts, and the discharge of the contents into the alimentary canal ; such fluids as hydatids are known to contain* in various stages of their progress, having, after the events just described, been discharged both from the stomach and per anum.

“This patient began the use of the hydriodate of potass in solution, on the sixth of October, 1821. She took at first eight drops twice a day, and continued them very regularly till the 23d of March, 1822. By this time a marked effect had been produced on the size of the tumour : but in consequence of some unpleasant feelings about the stomach and head, the drops were discontinued, and not resumed till June the 22d.

“From the use of this medicine, a very striking absorption of the diseased structure has taken place. Before she began it, the bulk was nearly as great as at any former period ; now, it is not discernible by the eye ; and it requires a pretty accurate examination by the touch to discover the remains of the substance, as she calls it, in the left iliac region.” 222.

Dr. Baron thinks himself fully entitled to ascribe these results to the remedy in question ; for excepting laxatives and the occasional application of leeches, no other remedies were employed.

The next case was somewhat a-kin to the foregoing, but in a person more advanced in life. The disease had been of slow growth ; but not much regarded till a few months before our author was called in, when it gave great pain, and rendered the individual incapable of exertion. When Dr. B. examined her, he found a tumour, the size of a child's head, occupying chiefly the left side of the abdomen. It had a solid feel, and was very tender to the touch. Leeches, fomentations, and hemlock were directed ; and then an ointment containing hydriodate of potass, to be rubbed upon the swelling night and morning. At the same time Brandish's liq. potassæ was administered internally.

“The rapidity with which the size of the tumour has been diminished, has quite surprised me. The remedies have not yet been used four weeks ; and I am informed by the gentlemen in regular attendance, that it does not equal half its original bulk. The pain and tenderness are quite removed, and the patient can walk, and exert herself almost as well as ever.” 224.

Excepting in cases of bronchocele, our author has not seen any instances of absorption so rapid as this.

“In another case of a very formidable aspect, the efficiency of the iodine was shown in a surprising degree. A gentleman had a

Vide Inquiry, p. 94.

series of tumours, which reached from the angle of the jaw to the top of the shoulder ; some of them were very large, being equal in size to a goose's egg ; they extended also to the front of the neck. Various powerful medicines, such as the compound calomel pill, liquor potassæ, &c. &c. were used without any effect. The hydriodate of potass was administered internally twice a-day, in doses of ten drops. It was continued for several months ; at the end of which time, the morbid growths were almost completely removed, all that remained being a very small substance, not larger than the half of a walnut." 225.

The result of these cases encouraged our author to use the remedy in other diseases of a kindred nature ; but the disorganizations were of such a description, as to preclude all rational hope, and therefore the results were disastrous. That there is strong reason to expect some effect from iodine, however, in the dissolution of pulmonary tubercles, Dr. Baron brings forward the following case, which we deem it necessary to give in the author's own words.

" A young gentleman, of a delicate frame, had been long affected with frequent cough ; but at first he did not expectorate at all. He lost flesh ; his pulse increased in velocity ; his respiration was frequently hurried ; and his countenance and manner indicated most serious disease. He had been in this situation for many months : when, after a fit of coughing more violent than usual, a small globular-shaped, but somewhat flocculent mass of tuberculous matter, partially tinged with blood, was discharged. This event fully confirmed my suspicions respecting the cause of the harsh dry cough, which had so long harrassed him ; and convinced me that tubercles existed in his lungs. Under circumstances of this kind, it is needless to say, that the most unfavourable prognostic was called for. I expected, of course, that in this, as in other similar cases, the patient would soon exhibit all the worst symptoms of pulmonary consumption. The expectoration of such matter, as above described, having occurred a great many successive times, at considerable intervals, tended to strengthen my apprehensions. I dwell upon these particulars, because, without such proofs as they disclose, no fair estimate could be formed of the value of the remedy on which I chiefly relied for the removal of the complaint. I consider it, therefore, as proved, that the patient in question had tubercles in the lungs ; and that they were rapidly hastening to that stage when recovery becomes almost hopeless.

" My plan of treatment was the following : I kept him in a regulated temperature ; I stimulated the chest occasionally by blisters and tartar emetic, and confined him to a strictly vegetable diet. At the same time, anodynes were occasionally used, to abate the frequency of the cough. But knowing that all these means, unless the tubercles themselves could be got rid of, would be of little avail, I administered such remedies as appeared most likely to promote that object. I began with the use of Brandish's caustic alkali, in a little

compound infusion of orange-peel, twice a-day. After employing these remedies for some weeks, I resolved to give him the hydriodate of potass. He began with eight drops twice a-day : and continued it for three weeks without intermission. It was then left off for about a fortnight, and resumed ; the quantity having been increased to ten and twelve drops. The consequence of this treatment has been an almost complete removal of the cough ; an entire cessation of all expectoration ; a complete freedom of breathing ; a reduction of the pulse to its natural standard ; a healthy state of the stomach and bowels, and a decided augmentation of flesh and strength. The patient is able to take long-continued and active exercise on horseback, and has consequently been exposed to considerable alterations of temperature, without suffering inconvenience." 228.

Dr. Baron properly acknowledges, that the above case cannot yet be spoken of as definitively disposed of ; but, so far as it goes, "it is perfectly satisfactory," and affords, he thinks, as strong a testimony as one case can give, that a most beneficial impression has been made upon the disease. "Should things continue to go on favourably, I shall feel no hesitation in believing, that this was an example of tuberculous phthisis, arrested in its progress mainly, I believe, by the medicine, of the qualities of which we have been speaking." He has exhibited it in several cases where ulceration had already taken place, and "all the most threatening symptoms of approaching dissolution existed." His trials in these cases confirmed what was to be expected—"namely, that the period for affording effectual relief was past." On the other hand, they have strengthened our author's conviction, that there is a period in the most formidable of all tuberculous diseases, when its course may be stayed, and the cause of subsequent evil eradicated from the system.

Our author takes this opportunity of recording some particulars of another case, which is applicable to the subject under consideration. The patient, a female, came under his care about three months previously to the date of report, affected with almost all the symptoms which characterize tuberculated accretions of the peritoneum, in a considerably advanced stage.

"There was weight, tension, hardness, and in some places tenderness of the abdomen ; great oppression after taking food ; almost constant nausea, and great irregularity in the functions of the bowels. There was likewise great emaciation and languor ; a rapid, feeble pulse, and that peculiar anxious expression of the countenance, which I have elsewhere insisted upon as a strong indication of the internal disorganization mentioned above. In short, every symptom led me to believe, that that disease had actually begun to establish itself. My hopes of any essential relief, of course, were very small: but the

facts already stated, clearly pointed to the sort of aid that it was necessary to attempt to procure for her.

"Leeches were applied to the tender part of the abdomen; and an ointment containing the hydriodate of potass was rubbed upon it. The action of the bowels was regulated by mild aperients; and lastly, the hydriodate of potass was also administered internally. Two blisters were applied in the course of the treatment. The result of these remedies has been a restoration of the healthy feel of the abdomen; the swelling, tension, and hardness, having been altogether removed. The functions of the alimentary canal have become more natural; the pulse has diminished in frequency; the countenance has lost its expression of distress, and she has decidedly acquired flesh and strength." 231.

Our author expresses his conviction, that the above was not a case of chronic peritonitis, but "that it belonged unquestionably to that family of diseases, to which tubercles give the character." We confess that this part of the statement is not quite so clear to us, as we have seen many cases sufficiently similar to the above, which were cured on the principle of their being chronic peritoneal inflammation. By this, however, we do not wish to lessen the weight of Dr. Baron's evidence in favour of iodine, which, we have no doubt, will soon receive an extensive trial in tubercular diseases.

We must now bring this article to a close. Dr. Baron will not probably be satisfied that we have not gone into those controversial chapters, to which he will naturally be inclined to attach much importance. But it was quite impossible for us to give any thing like a connected view of the controversy, without occupying a space greater than the whole of this article now occupies—and even then we should have given little satisfaction to our readers, or to the parties concerned. Dr. Baron will perceive that we have assented to the main points of his doctrine, and if we do not attach so much importance to the views which he takes of tuberculous affections as he himself may think they demand, we are ready to express our admiration of the zeal, industry, and even talent, with which he prosecutes his pathological investigations.

The plates are admirably executed, and very delicately coloured. They convey a clear idea of the morbid structures they are meant to represent.

IX.

The Study of Medicine. By JOHN MASON GOOD, M.D., &c.
&c. In Four Volumes, 8vo.

[Second Analytical Article, continued from page 596.]

CLASS II.—PNEUMATICA;

OR DISEASES OF THE RESPIRATORY FUNCTION.

IN pursuance of our plan, we come now to another class of vital functions, hardly less important in itself than the first; but, embracing a very limited number of diseases in our author's system. This class is divided into two orders—the first termed *Phonica*, or affections of the vocal avenues—the second *Pneumatica*, or affections of the parenchymatous structure, membranes, and motive powers of the lungs. The anatomico-physiological proem to this class, occupies about 25 pages, and does not offer any thing on which we could make any useful remark. We question whether *ventriloquism* should have usurped an eighth of the whole proem—it does occupy three pages and a half out of twenty-five. We must also pass over the whole of the first order, embracing the six following genera:—viz. *Coryza*, *Polypus*, *Rhonchus*, *Aphonia*, *Dysponia*, and *Psellismus*. These subjects occupy a space of about 50 pages, and afford a considerable stock of curious, and not uninteresting, information.

The second order is also divided into six genera, viz. *Bex*, *Dyspnoea*, *Asthma*, *Ephialtes*, *Sternalgia*, and *Pleuralgia*.

We observe that Dr. Good has considered cough (*Bex*) as, "at times, as truly idiopathic as any complaint whatever." We confess that we can hardly look upon it as any thing else than a mere symptom of a variety of affections. Indeed, in the greater number of instances, we consider it not a disease, but a remedy, or, at least, an effort of Nature to get rid of some offending matter. In all other cases, we look upon it as the effect of irritation propagated, directly or indirectly, on the air-passages—and, consequently, in every instance, *symptomatic*. Thus, in Dr. Good's first species, *BEX HUMIDA*, or common cough, "the exhalants (he says) of the bronchiæ are stimulated by an irritation of some kind or other, frequently by a reverse sympathy, &c. whence the bronchial vessels become overloaded and relieve themselves by an expectoration, &c." Surely the cough, or effect of this morbid state of the bronchial vessels should not be nominated the disease itself. The same reasoning will apply to all his other species of cough—even to the *BEX CONVULSIVA*, or *hooping-*

cough, in which "there can be little doubt that it proceeds, in most instances, from a miasm of a specific nature and peculiar character, having a direct determination to the lungs." Now it will be readily allowed, that the miasm is received into the body long before the cough begins—and, that some change must take place in the mucous membrane of the lungs before the cough is excited—in short, the disease itself must have actually commenced some time before the phenomenon of cough exists, and then, a single symptom is put down for the whole disease! This is one of the imperfections of nosology.

Dr. Good enters little, if at all, into the pathology of the disease, unless the following passage can be considered in that light.

"In infants, it is mostly alarming from its tendency to produce convulsions, suffocation, apoplexy, inflammation of the brain, ruptures, and incurvation of the spine. In adults, it excites pneumonitis more frequently than in children; and in pregnant women has often led to abortion."—525.

He does not once allude to the important investigations of the late Dr. Watt of Glasgow, whose mind was led to the subject by severe domestic losses in his own family. In Dr. Good's *methodus medendi*, we do not see any thing new, and we think, he leans too much to the antispasmodic, and too little to the antiphlogistic plan of treatment. Bleeding, he thinks, should only be resorted to in severe cases, "as spasmodic affections are often rather increased than diminished by the use of the lancet." It will generally be found better, he observes, to employ blisters as a substitute. The most effectual remedy, he thinks is emetics, "whose action tends equally to interrupt the return of the paroxysms, and to keep the lungs unloaded, by producing a determination to the surface." The practice recommended by several writers is, also, shortly stated by our author.

Dr. Good has invented the term *LARYNGISMUS STRIDULUS* for what is usually denominated spasmodic croup, and which, he observes, differs essentially from real croup. It is thus defined:—"sense of spasmodic suffocation in the larynx, commencing suddenly, and relaxing, or intermitting; cough troublesome; scanty discharge of viscid mucus." In this disease, he says, we have neither inflammation nor the membrane-like secretion of real croup, while the sense of suffocation is produced, not by obstruction, but by spasm.

"The suddenness with which this complaint commences its attack, forms another mark of distinction between itself and croup, almost as pathognomic as the absence of inflammation, and the

peculiar secretion in the latter. There are instances, indeed, in which genuine croup has also commenced abruptly, but these are very rare ; for it has usually the precursive symptoms of a slight cough and hoarseness for a day, and sometimes two days, as though the patient were labouring under a catarrh. In croup also, the inflammation, when it has once taken effect, becomes a permanent cause of excitement, and the anxiety and struggle for breath continue with little if any abatement till the inflammation is subdued. In the disease before us, the spasm suddenly subsides in a short time, though it may perhaps return in an hour, or half an hour, or even a few minutes ; and in the interval the patient enjoys perfect ease, though the voice is rendered hoarse from the previous straining. Croup is, moreover, an exclusive disease of children ; stridulous spasms of the larynx is sometimes found in adults. Those who have been dissatisfied with the name of spasmodic asthma, have, however, treated of it under the name of spasmodic croup, but merely because they have not known how else to distinguish it ; for almost every one who has thus noticed it, has acknowledged that it is a different disease, and demands a different plan of cure." 534.

The treatment which Dr. Good recommends is, we believe, judicious. An antimonial emetic should be given as soon as possible, and the diaphoresis which it excites should be maintained for some hours, by keeping the child in bed, and the use of diluents. "The bowels should also be excited by a purgative of calomel." If the emetic does not prove sufficient, or the constriction should be renewed, "laudanum should be exhibited according to the age of the patient, and a blister be applied to the throat." The great danger consists in mistaking this disease for real or inflammatory croup, in which case, although the emetic and purgative, in the first instance, would do no harm, yet the same cannot be said of the laudanum.

The genera iii. and iv. dyspnoea and asthma, have afforded Dr. Good ample scope for his favourite discussions, respecting nosological distinctions, etymological definitions, and classical arrangement—discussions that will appear dry and uninteresting to most, and absolutely useless to many of his readers. We sincerely wish he had occupied many hundreds of his pages with recent pathological facts, rather than with ancient or obsolete doctrines.

While discussing some modern hypotheses, our author too often passes over in silence, those that are making the greatest noise in the world. Thus, in debating "whether the suffocative tightness of the chest (in asthma) be the result of a spasmodic stricture of the bronchial vessels, spreading thence to the muscles of respiration ; or, produced by an infarction of these vessels, from a superabundant effusion from their exhalants," Dr. Good has taken no notice of the controversy

maintained for some years past on the Continent, respecting the pathology of asthma—in which one party, with no mean talent and many stubborn facts, maintain that the disease is almost invariably dependent on disturbed function or altered structure in the heart. We do not, indeed, subscribe to this doctrine in its fullest extent; but still, we are persuaded, that there is no inconsiderable degree of truth in the melancholy doctrine of Rostan and his followers. In this section, Dr. Good has drawn freely on the standard work of our distinguished countryman Dr. Bree, and, in that, has shown his judgment. He differs from Dr. Bree occasionally, but in a fair and liberal manner.

Genus vi. is on a disease unknown to, or, at least, undescribed by, the ancients. It has received various appellations from modern writers, as syncope anginosa, asthma dolorificum, orthopnoea cardiaca, and angina pectoris. It is termed *sternalgia** by Dr. Good, signifying “breast-pang,” which is significant enough, as a mere appellation; but, as the disease

* *Sternalgia* was applied to this disease many years ago, by M. Baumes, a French writer. We think that “*coralgia*, would be a still more proper term—the sense of distress being, almost always, referred to the heart itself.

It is not a little amusing, sometimes, to observe the anxiety of our Parisian neighbours to trace all discoveries which have borne the name of English, to themselves. Thus, in the early volumes of the *Dict. des Sciences Medicales*, the English are ridiculed for their credulity or ignorance in supposing angina pectoris to be an idiopathic disease; but, by the time they had got to the 52d volume, it was no longer possible to shut their eyes against facts—*l'evidence des faits les a enfin obligés à se retracter.*” What then was to be done about a disease—“*dont la description primitive est généralement attribuée aux Anglais?*” What, but claim the discovery for themselves! Four years before Heberden published his account, a *compatriote* wrote a letter to the celebrated Lorry, describing angina pectoris. Unfortunately, (there is always some piece of ill luck when the French fail) this letter cannot be found in any *Bibliothèque* in Paris, nor has any author given an analysis of its contents. *Sacre!* It is the only thing wanting to complete the history of French medical literature? “*Cette dissertation qu'on doit considerer comme une piece essentielle à l'histoire de la medecine Française.*” Where is the blame to be thrown for this unaccountable ingratitude to, or negligence of, the poor Peter Perdu? Not on his own countrymen, of course;—no, no—on the *English* certainly! It is entirely the fault of the *English* that this dissertation is not to be found in the *bibliothèques* of Paris! —“*Pièce que nous devons mettre autant de zèle à faire connaitre, que les medecins Anglais ont mis à la laisser dans l'oubli.*” There cannot, of course, be a doubt, that Dr. Heberden travelled all through France, and bought up every copy of this Peter Perdu, which he burnt before he published his discovery. What a happy people are our French neighbours, who can thus draw fuel for their own vanity out of the successes of their rivals.

After all their early skepticism, however, they have at last given a very good account of the disease.

is now pretty universally acknowledged to be an affection of the heart, it certainly appears curious enough, to see it arranged with affections of the lungs. Dr. Good may say, that the function of respiration is disturbed in angina pectoris, but surely so is it, also, in many other diseases, for instance, in pneumonia, which is excluded from this class. Indeed, we are compelled to say, that the farther we proceed, the more convinced we become of the utter hopelessness of any thing like a natural or perfect nosological arrangement of diseases.

Although we are of opinion that the train of phenomena presented in angina pectoris is produced by various and often dissimilar affections of the heart; yet that, in nine cases out of ten, it does depend on *organic* affections of that viscus, we are well convinced. We have seen in our own practice, and through the kindness of professional friends, a good many instances of this disease, and in all (except one case) there were lesions of structure of some kind, in the central organ of the circulation. In the majority of cases there were ossifications or indurations about the valves or vessels of the organ—in some there was an overloaded state of fat—and in others there was a flaccid and easily lacerable condition of the muscular structure of the organ. We have said there was one exception, though we are by no means certain that this was a *real* exception. It was the late Mr. Price, surgeon, of Walthamstow, by whom we were twice or thrice consulted. He had well-marked angina pectoris, and died in one of the paroxysms. We were not present at the dissection, but it was reported that no organic lesion was found.*

On the Continent, indeed, much confusion reigns in respect to angina pectoris. In France they would not acknowledge, till very lately, any such idiopathic disease, and they said that the angina pectoris of the English writers was nothing but spasmodic asthma.† In Italy, Professor Brera, of Padua, has written a treatise on this disease, which he designates by the term "*Sterno-Cardia*," indicating the oppressed state and impeded functions of the heart produced by the unnatural compression or encroachment of some neighbouring organ. He does not consider the heart itself as the seat of the disease. In most of the cases related by Valerian Brera, there was great enlargement of the liver, causing much encroachment on the region of the heart, and doubtless embarrassing the free action of that organ; but few, if any, of the cases exhibited

* We have since learnt, however, that Mr. Travers found some organic disease.—*Ed.*

† See the article "*angine bronchiale*," in the *Dict. des Sciences Médicales*.

the phenomena of real angina pectoris, as known and described in this country. We shall instance the first case as a specimen somewhat abbreviated.

"A man, 62 years of age, of small stature, but strong and active, had been for several years subject to frequent oppressions suddenly attacking him, which he referred to the middle of the sternum, without feeling any pain in respiration. On the 1st of October, 1804, the oppression returned more frequently and severely than usual, and the patient began to complain of feeling, from time to time, a pricking sensation in the left breast, followed by acute pain, which extended to the left arm. He did not lose his recollection during the attack, which was short, but he became vertiginous, and his sight was confused. When the paroxysm ceased, there remained a sense of numbness in the whole of the left arm; the pulse was more or less irregular, hard, and frequent; bleeding was prescribed, but not submitted to.

"On the 22d in the evening, having walked three miles and being fatigued, he was seized with a violent fit of coughing, and expectorated a little bloody mucus.

"On the 28th, he was seized with a violent pain in the head, and fell down senseless; attempts were made to recover him, but he had breathed his last.

"The brain was found in a healthy state; great adhesion had taken place between the right lobe of the lungs and the pleura costalis, as well as between the pericardium and the left lobe. The heart was of its natural shape and texture, except there being some varices along the course of the coronary veins, and a great dilatation of the right auricle and ventricle. The liver considerably enlarged and very hard, was displaced from its natural situation, and occupied the whole of the epigastrium; its left lobe was raised in such manner, as to have forcibly pushed up the posterior inferior surface of the heart, and retained that viscus in a state of total compression. The other viscera of the abdomen were in a sound state."

The above case does not correspond with what we have seen in this country under the name of angina pectoris, and after all, as there was actual organic disease of the heart present, we do not see how Professor Brera can decide that the seat of the complaint was in the liver, although it is very probable that the hepatic enlargement conduced to the cardiac affection.

We shall here state the particulars of one of those cases which fell under our own notice, and which we examined after death in the presence of Drs. Lara, Denmark, and some other medical gentlemen.

Case. 19th July. The reporter was suddenly called to Mr. Myrtle, aged 40, who was found gasping for breath, while his wife was chafing his chest, and another woman his left arm, which appeared pale and lifeless. His face was pallid, but expressive of great

distress—lips livid—forehead bathed in cold sweats—pulse rather quick and weak, but not irregular—inability to articulate from pain in the region of the heart and in the left arm, and also from a sense of suffocation. Without waiting for a history of the case a vein was opened, and by the time that 24 ounces of blood were abstracted, the paroxysm ceased. The patient now gave the following history of his case. In April of the year before, while walking in the street, he was suddenly seized with a violent pain in the guard of the left arm, which presently shot into the breast, accompanied by a loss of breath, and a sense of dying. He with difficulty got into a house, and swallowed a glass of spirits, soon after which the fit went off. From that time he never passed a day without one or more of these paroxysms more or less severe. They generally come on about five o'clock in the afternoon, while he is walking home from his employment; but they are readily excited at any time by corporeal exertion or mental agitation. For some time past the pain in the region of the heart is accompanied by a distressing palpitation, and a sensation as if the organ was rolling over and over. He says that he sometimes finds the heart cease to beat altogether. The fit generally lasts but ten or fifteen minutes, sometimes an hour or more. There is always, even between the paroxysms, some degree of dyspnœa. The last was the severest he ever had. For some time past he felt, during the fit, a painful kind of globus ascending to the throat; and at all times he is much troubled with flatulence. He is generally costive, and always worse when purged—a paroxysm is not unusual after a lax motion. For two days after the bleeding he had no attack—an unusual immunity; but they then returned as before, and on the night of the 27th of the same month, he was awakened from his sleep by a severe paroxysm, which terminated his existence, about fifteen months from the first accession of the disease.

The body was opened in the presence of Drs. Lara and Denmark. The lungs were healthy—the pericardium contained about an ounce of serum—the heart was large, fat, curiously mottled on its surface, and remarkably soft and flabby. The parietes of the right auricle were peculiarly thin—the auriculo-ventricular opening on that side rather large—no imperfection in the tricuspid valve—right ventricle passively enlarged, its parietes thin and weak—pulmonary artery and valves natural. The left ventricle, which was full of black fluid blood, presented nothing unnatural except the paleness, softness, and weakness of its muscular structure. Incipient points of ossification were observable on the mitral valve. The origin and arch of the aorta were enlarged, and the coats thickened, indurated, and exhibiting scales of ossific deposition, and still broader ones of substance resembling cartilage. The valves were not diseased. The right coronary artery was distinctly seen opening into the aorta, and on being slit open was found natural. The origin of the left coronary artery was sought for, but in vain. A transverse section of the heart was then made, when the left coronary artery was easily recognised, and a probe was passed along it towards the aorta, where its origin was found completely impervious. The whole calibre of the vessel

was much smaller than the other, but not otherwise diseased. No disease in any of the abdominal viscera.

Whether, in the above case, the obliteration of the origin of the left coronary artery can be looked upon as leading to the phenomena of the disease, or to the softened condition of the muscular structure of the heart, must be a matter of conjecture. That side of the heart could only have been nourished by inosculation with the other coronary artery. It is probable, however, that the obliteration of the origin of the vessel was of recent occurrence, otherwise the shrinking of the rest of the artery would have been still greater than was found to be the case.

Our friend Dr. Palmer, of Tamworth, has stated, about eight years ago, a case which, though it does not appear to have been one of well-marked angina pectoris, is yet very interesting. The following is only an outline.

“Mr. H—, of Staffordshire, nearly 70 years of age, a very stout and athletic man, had been complaining for six or seven months of uneasiness in the left region of the thorax, extending to the loins, right shoulder, and down the arm as far as the elbow. He could not ascend stairs or steep ground without being suddenly arrested with loss of breath and a severe sense of stricture across the lower part of the sternum. He was much troubled with flatulency and cardialgia. In all other respects he seemed the emblem of health and strength, although “his whole life was passed in an alternate state of excitement from immoderate drinking, and of languor and drowsiness from the exhaustion consequent on it.” He swallowed, on an average, two bottles of gin daily! His pulse was, in general, weak and frequent; but hurried and irregular on any mental or corporeal excitement. His father and brother had both died suddenly from unknown causes. On the 26th October, 1814, he was well as usual, took dinner with his accustomed appetite, and walked out into an adjoining field, where he assisted to drag a horse out of a well. He complained immediately afterward of much exhaustion—leaned against a tree—and sunk lifeless on the ground.

Dr. Palmer and Mr. Arrowsmith examined the abdomen and thorax only. The lungs were sound—loose part of the pericardium loaded with fat, but the rest of it healthy—three or four ounces of fluid in the pericardium—heart pale, flabby, softened in structure, and completely empty of blood—pulmonary auricle and ventricle enlarged passively—valves of the pulmonary artery rigid—aortic auricle much dilated—mitral valve thickly strewn along its base with points of ossific deposition—the valve itself had lost its natural structure, and resembled cartilage—aortic valves converted into bone—both coronary arteries were become cylinders of bone—the root of the aorta one-third larger than natural—no ossification of the cartilages of the ribs. The abdominal viscera were sound, and permission could not be obtained to open the head.”

We agree with Dr. Palmer that the above case "in its leading characters and termination more strongly resembled angina pectoris than any other organic disease of the heart with which we are acquainted—not, however, that affection in its simple and more rare form, but complicated with valvular disease of the aortic portion of the heart."*

We have made little or no allusion to several writers who regard this disease as totally independent of any organic affection, but rather as occasioned by spasm or the irritation of some translated disease, as gout, &c.†

Among these are Darwin, Berger, Butler, Heberden, Bergius, and Dr. Parr. But dissections are now more frequently and more carefully made than in former periods—and organic diseases are more readily detected. Dr. Good appears to view angina pectoris as "not originating necessarily in any structural derangement of the organs affected, and his nosological definition seems to place it in connexion with the respiratory rather than the circulating organs. In this we cannot agree with our esteemed author. We shall quote his *methodus medendi*.

"The mode of treatment which I have found most successful consists in putting the patient immediately in an inclined, rather than a recumbent position, with his head raised high. He should instantly take an emetic of whatever may be given most expeditiously, though the antimonial preparations form the best medicine for this purpose, as producing a longer action. As soon as the patient rejects, he may be allowed a little warm water, though this should be administered to him sparingly. The diaphoresis hereby usually induced should be assisted by a moderate warmth of bed-clothes, and particularly by placing the patient between the blankets; and if the constrictive pain or difficulty of respiration still outlast the sickness, opium intermixed with ether, camphor, or other diffusible antispasmodics, should be employed pretty freely." 589.

Our own view of the nature and cause of the disease precludes, of course, all expectation of cure. We have seen the disease retarded in its progress, but no case prevented ultimately from terminating fatally. There are, we acknow-

* See the cases of angina pectoris published by Dr. Black of Newry, in the *Memoirs of the Medical Society*, vol. iv. and also in the 7th volume of the *Medico-Chirurgical Transactions*, for instances analogous to the above. The experience of Dr. Jenner and Allan Burns also is in favour of the organic cause of the disease. Jurine and Desportes, who have written two excellent dissertations on angina pectoris, consider the disease as attributable to functional disorder of the heart and lungs, and as rangeable among the *neuroses*.

† See *New Med. and Phys. Journal* for December 1811.

ledge, some cases on record, that seem to prove the curability of the disease. Thus, Dr. Parry himself, who placed its cause in ossification of the coronary arteries (which surely he did not believe to be removeable) mentions the case of an elderly patient who had laboured under angina pectoris, but who had wholly or nearly recovered from the disease by the use of the Bath waters. *Credat Judæus!* Dr. Robert Cappe also relates a case in the 4th volume of the Medical and Physical Journal, which he asserts was angina pectoris, and cured by nitrate of silver. But we are confident the disease was not angina pectoris. Dr. Cappe never saw the patient in a paroxysm, though the fits always returned once, and sometimes very often daily. We think, therefore, that Dr. Cappe had very little curiosity or anxiety about the disease at all. In fact, we do not recognise a single symptom of angina pectoris in the case, except that of "gasping for breath," which every body knows attends many other diseases, and winds up almost all. The reasonings which led Dr. Cappe to employ lunar caustic in the cure, we do not well comprehend; but the fact on which they were based was this—that in the year 1793, when galvanising the nerves and muscles of frogs, he found the *latter* restored to energy by touching them with *argentri nitras*, after they had ceased to obey the electric excitation.

A well-marked case of angina pectoris is related by Dr. Palmer, in the 8th volume of the New Medical and Physical Journal, for December 1814, where considerable alleviation of the disease was obtained by instituting a permanent drain from the region of the heart; by abstinence; quietude of mind and body; moderate exercise in the open air; antacids; bitters; aromatics; and gentle laxatives. These measures attended to during the intervals of the paroxysms, may do much to procrastinate the fatal catastrophe in some cases, though they will prove utterly inefficacious in others.

It may be asked what ought we to do in the paroxysm? Considering the weakened or disorganized state of the heart, we would not recommend bleeding, though it will be observed that we bled the patient whose case is narrated. But he appeared to be dying, and we bled him without having time to reflect on the nature of the disease. As it happened, he was relieved by it at the time; but we repeat it that we have since seen bad effects from general bleeding. If called to a patient labouring under the immediate attack, we should be more inclined to exhibit gentle cordials, with cool and fresh air, than any other class of remedial agents. At the same time there may be cases where the heart becomes, as it were, overpowered with blood, as in exercise, &c. and in

such cases it may be proper to draw off a few ounces just to relieve the local plethora about the heart for the time. It is curious that great flatulence in the stomach is an almost invariable attendant on angina pectoris, and not a little aggravates the complaint. Indeed we have reason to believe that it occasionally excites the attack. It is therefore of great consequence to obviate this symptom by every mean in our power. Dr. Percival informs us that nothing relieved the paroxysms so instantaneously as venesection and vomiting; but death may take place before emetics may be made to act. Dr. Parry, as may naturally be expected, was a strong advocate for sanguineous depletion during the paroxysm, but he desires it to be done under the following precautions:—"blood should be taken from a small orifice, the patient being placed in the horizontal position, while the physician is to keep his finger on the pulse to decide on the limits to which venesection is carried." Rubefacients, frictions, and pediluvia may be serviceable.

CLASS III. *Hæmatica; or Diseases of the Sanguineous Function.* This class contains four orders; viz. fevers, inflammations, eruptive fevers, and cachexies. The physiological proem prefixed to this class descants, 1st, on the machinery of the sanguineous system; 2dly, on the moving powers: and 3dly, on the nature of the fluid circulated. It consists of 33 pages, and exhibits much research, little originality, and some error. We deem the following passage, just under our eye, to be an example of the last ingredient.

"It may be still further observed, that, in a state of inflammation, the pulse of the inflamed part, in consequence of local excitement, is much more frequent than that of the heart or of any other organ. Thus, in a willow, the radial artery may give to the finger a hundred pulsations in a minute, while not more than seventy strokes may be exhibited in any other part of the system. The rapidity of the pulse is in this case usually in proportion to the degree of the inflammatory action; and hence, if the system should labour at the same time under ten different inflammations in different parts or organs of a different structure, as glands, muscles, and membranes, it is possible that it may have so many different seats of pulsation taking place at such different parts at one and the same time, while all of them are at variance with the pulsation of the heart." 17.

We have probably paid as much attention to the phenomena of the pulse and the circulation in general as our brethren, or as Dr. Good himself; but in the course of nearly 30 years' observation, we never witnessed a single instance of the number of pulsations in an inflamed part varying from the number of contractions in the left ventricle of the heart.

And if Dr. Good will show us a single example of the kind marked by us in italics, we will pay him down one hundred guineas—if ragged reviewers can be supposed capable of mustering up such an immense sum in these hard times. We have seen a very few instances, in diseased states of the heart, where the pulsations at the wrist were *less* in number, (generally just half the number) than those at the heart—but never a single instance where they were *more* in number. Indeed we consider the latter to be a physiological impossibility, unless in cases where there is one heart in the chest and another at the elbow. That the diameters of vessels and the *degrees* of their throbbing increase considerably as they approach a phlegmonous tumour or acute inflammation, is well known; but the pulsations are *synchronous* with the other tangible arteries, and with the ventricular contractions.

Dr. Good appears to adopt the doctrine that the heart acts in the double capacity of a forcing and sucking pump, and that it is the main, if not the sole moving power of the circulation under ordinary circumstances. He seems also to embrace Dr. Carson's hypothesis respecting the resilient power of the lungs in expanding the chambers of the heart; but as, Dr. Carson is very generally allowed to have failed in explaining the circulation of the *fœtus* in utero, where the said resiliency has not come into play, we think the whole hypothesis must resolve itself shortly into its original constituent principles, like all other things on earth or in the air. It must be confessed that Dr. Good is sufficiently indulgent to new theories and hypotheses—thus Sir Everard Home and others “have established beyond a controversy” the communication between separate organs, “though we can trace no intercourse of vessels.” The kindness of the cardiac portion of the stomach in transmitting fluids to the spleen, without the intervention of vessels, is certainly very extraordinary—and still more so the mystic or rather the magic communication between the stomach and bladder. All we can say at present is, that experiments as well as experience are fallacious now as they were in the days of Hippocrates.*

* Della Torre made out the corpuscles of the blood to be flat circles or rings with a perforation in the centre—Hewson represents them as hollow or vesicular, with a dot of red colouring matter in the centre, so that they were doubtless “the wheels of life moving on iron axles;”—but “M. Baur,” says our author, “has ascertained, he thinks, that it is not the centre of the globule that is dotted, but its outline that is surrounded with colouring matter; so that instead of being annular wheels with iron axles, they are spherular wheels with iron tiers.” 33. *Risum teneatis, amici?*

We gladly emerged from the labyrinth of microscopical observations on the blood; but PYRECTICA or FEVERS stared us in the face, and the very sight of the word proved the *thing* contagious, without any arguments, for we instantaneously felt the cold chills of its intermittent form creep over our frame! It requires, indeed, no small degree of courage as well as curiosity to wade once more through the pyretic theories of the schools;—the concoction and critical evacuations of Hippocrates and Galen—the acid, alkaline, effervescent desumptions of Van Helmont—the lentor and error loci of Boerhaave—the spasm of Stahl, Hoffman, and Cullen—the sthenia and asthenia of Brown—the sympathetic associability of Darwin—the inflammatory hypothesis of Marcus—the cephalitis of Clutterbuck—the excitement and collapse of Armstrong—the gastro-enteritis of Broussais and the new old doctrine of Stimulus and Contrastimulus now flourishing in Italy! Yet with all these theories before us, the hue and cry both at home and abroad is—“give us general principles to act upon; and away with your empirical treatment of each case according to its symptoms.” If we ask what principle will ye have, gentlemen?—one calls out for Armstrong, another for Broussais, a third for Clutterbuck, a fourth for old Cullen, while several sober-looking gentlemen shake their heads, and observe that neither principles nor practice can yet be positively defined, and till then we must “obviate occasional symptoms” as they arise, even at the risk of being designated empirics. In truth, none are greater empirics than those who attempt to act on fixed principles in medicine, where no fixed principles are established. Thus if a Broussaian comes to a fever patient with evident symptoms of determination to the head, and yet, true to his master’s principle, applies leeches to the epigastrium—he is an empiric. If a disciple of Clutterbuck, on the other hand, finds a patient in fever, with pain, tenderness, and fulness about the epigastrium, for which he shaves and blisters the head, *on principle*—he is an empiric. The red hot phlebotomist, who bleeds in all cases of fever—because it is fever, is just as much an empiric as his predecessor, the Brunonian, who “never wet a lancet in fever,” because all fevers were asthenic. In short, if there be any thing like a well-founded principle in medical science, it is this ridiculed principle of treating every individual case according to the phenomena which it presents at each varying stage, and in each varying constitution, instead of on a pre-established principle which is more likely to be founded in error than truth, and which, if ever so just, could not apply even to the majority of cases.

In the age we live in, two main doctrines respecting fever divide the medical world, one of which is subdivided into certain sects or parties. The first of these doctrines, and that which has still the greater number of adherents, contemplates fever as an idiopathic disease, and though frequently not necessarily connected with inflammation of any particular structure in the body. The other doctrine, the disciples of which are increasing, views fever as nothing more than a general or constitutional expression of a local disease—which disease is, of course, inflammation. The converts to this doctrine or reformation have as is not unusual, split into sects, each asserting that its own dogma is the only infallible one. These sects are three in number. One, the followers of Marcus, regards the local inflammation as sometimes in one organ or structure of the body, sometimes in another—but always present as the basis of fever somewhere.* The second class with Broussais at their head, have fixed the origin or focus of fever in the mucous membrane of the digestive organs, whence it radiates on all parts of the system, and produces the phenomena hitherto falsely attributed to a kind of entity or imaginary being denominated idiopathic fever. The third party of phlogotics (as they may be called in contradistinction to the pyretics, or idiopathic party) are pretty numerous in this country, and consider Dr. Clutterbuck or Dr. Ploucquet as their founder. It is well known that they confine the *font et origo* of fever within the parietes of the cranium and vertebral canal, making phlogosis of the brain, its membranes, or its appendages the exclusive proximate cause of fever.

Now it is quite impossible that these various doctrines can be all right. And yet we think they are all right—at times. It is the Procrustic bed, on which each party stretches or cramps his favourite theory, that deprives them all of their natural proportions, and renders them all more or less deformed.

Of the various theories of fever, we believe that those which give most latitude to the causes, most variety to the features, and most contingency to the consequences or post-obit phe-

* "On this ground it is that Professor Marcus of Bavaria, who has contended with similar strenuousness for the identity of fever and inflammation, has regarded all inflamed organs as equal causes; and is hereby enabled to account for the different kinds of fever that are perpetually springing up before us. Thus inflammation of the brain, according to Marcus, is the proximate cause of typhus; inflammation of the lungs, of hectic fever; that of the peritoneum, of puerperal fever; and that of the mucous membrane of the trachea, of catarrhal fever." Good, vol. ii. p. 59.

nomena, will come nearest the truth. We consider, therefore, that the *first* doctrine to which we have alluded (though not without faults, some of which we shall presently point out) approximates most to a true estimate of the nature of fever. We do not think that the fundamental principle of this doctrine has ever been more clearly or more succinctly stated than in the following words of Dr. Fordyce :—

“ ‘ Fever, therefore, says he, ‘ is a disease that affects the whole system ; it affects the head, the trunk of the body, and the extremities ; it affects the circulation, the absorption, and the nervous system ; it affects the skin, the muscular fibres, and the membranes ; it affects the body, and affects likewise the mind. *It is, therefore, a disease of the whole system, in every kind of sense.* It does not, however, affect the various parts of the system uniformly and equally ; but, on the contrary, sometimes one part is much affected in proportion to the affection of another part.’ ”*

The validity of the above doctrine has not, we imagine, been shaken by all or any of the investigations which have taken place since the days of Fordyce. The statement quoted will certainly apply to fever when regularly formed ; but if we look more narrowly into the chain of phenomena which connects this state with the first application of the cause of the fever, we shall probably be inclined to relax a little in favour of those doctrines which assign a “ *local* habitation and a name” to the disease. If a person, for instance, be carefully watched after exposure to the febrific miasm issuing from marsh or human sources, he will unquestionably exhibit phenomena that indicate a local or circumscribed sphere of morbid action, in the earliest movements of the disease. In whatever way the poison gets into the system, the sensorium commune, as might naturally be expected, appears first to feel its effects. Our own observations and our own feelings would induce us to think that the *mental* faculties or functions are impaired at an earlier stage than any of the grosser functions—implying that the brain and nervous system are primarily implicated. It is very easy to see that any functional ailment in this class of organs (whose influence on all parts of the body is so extensive) must so very promptly derange the various other functions of the human frame as to render priority of lesion quite undistinguishable by the great mass of observers—and thus give rise to the idea of general and simultaneous disorder throughout the whole system. Thus far then we agree with Ploucquet and Clutterbuck in making the brain and its appendages the primary seat of

* On Fever Dissert. i. p. 28.

fever. But so far from considering this primary affection as inflammation, we regard it as quite the reverse—at least the phenomena presented by it (the only proofs we can have in that stage) are diametrically opposite.

When, indeed, that operation takes place in the economy, which has aptly enough been termed *reaction*, a state obtains in the brain, the viscera, and the vascular system, very closely allied to, and very often terminating in, unequivocal phlogosis. Whether we designate this condition (which precedes, resembles, and, we apprehend, induces inflammation) by the terms excitement or irritation, is not perhaps very material. It is known in the living body by a lower degree of those functional disturbances which attend idiopathic inflammation—and in the dead body by a turgescient state of the capillaries of the part. Both this state and the actual inflammation into which it often runs, are also known to the observant practitioner by a therapeutical phenomenon—namely, that, whereas you may *control* them by the usual antiphlogistic means, you will very seldom be able to *remove* them with the same facility, and in the same space of time, that you would idiopathic inflammation—and why? because they are produced by an effort of the constitution to resist or repel a deleterious agent—which effort requires, in general, a cycle or period varying according to the nature of the morbid agent and the powers of the constitution. The poisons of plague, of typhus, of variola, and other diseases, offer ample proofs and illustrations of this position.

That local inflammations do frequently occur in fevers of every description, and in almost all protracted and fatal cases, is now proved beyond the possibility of doubt, by the great disturbance of function in the organ or organs before death, and the manifest alterations of structure on dissection. Death, however, does occasionally take place without leaving any trace of inflammation—and that in three different ways, viz. 1st, where the force of the febrile cause or miasm is so great, or the constitution so weak, that no regular reaction of the system ensues, and life is destroyed by a gorged state of the vessels of the brain and viscera. 2dly. Where the reaction is so violent that the great vital functions are exhausted or overwhelmed before any of the usual appearances of inflammation have had time to form. 3dly. Where the disease is long protracted, from whatever cause, and the patient gradually sinks by a slow exhaustion, that leaves little or no trace of structural alteration after death.

If then these local inflammations be contingencies or consequences rather than causes or essential concomitants of the fever, it may be asked why do they take place in one organ

or class of organs rather than in others—or why do they take place at all? It may be answered, that when the cause of fever (say the poison of typhus, variola, or plague) is applied to the constitution in sufficient quantity, that process termed reaction of the whole, but especially of the vascular system must take place, consistent with the laws and safety of the animal economy. But this reaction or great vascular commotion is not without its attendant danger. Even in the best constitutions, where every organ seems endowed with its just proportion of power, and the equilibrium of the functions is perfect, the whole system experiences a great shock during fever, and the patient is left in a state of vast debility and exhaustion. What then is naturally to be expected when one organ or class of organs is previously weak or imperfect in its functions? We see the consequence too often, when the vascular excitement of measles, variola, or scarlatina—nay, the common symptomatic fever from a wound or accident, excites phthisis in persons whose lungs are previously unsound. Upon this principle only can we account for the balance of irritation or inflammation inclining sometimes to one organ, sometimes to another in fever—and we see it almost invariably fall upon that structure in greatest force, which was previously predisposed to disorder from the habits or original constitution of the patient. The alimentary canal and the brain are unquestionably the organs most frequently affected in fever, as we might naturally expect, from the intemperate habits and turbulent passions of society. The followers of Ploucquet and Clutterbuck will more easily persuade themselves than others that the brain is the primary organ affected, and the other lesions merely secondary. On the other hand, the Broussaïans may argue for the priority in the abdominal viscera; while the unbiassed observer will probably join us in the view which we have taken of the contingency of inflammation in fever. Indeed, we think that a careful consideration of the various remote causes of fever;—of the various forms which it assumes in different epidemics, in different climates, and in different subjects—of the various modes of treatment which have succeeded in the disease—and of the various *post-obit appearances* recorded by practitioners, might have deterred any but the most determined theorists from setting up such circumscribed systems of pathology as Drs. Ploucquet, Clutterbuck, and Broussaï have done.

The foregoing brief exposé of the nature of fever may not be inappropriately followed by a few words on the general principles of treatment. A considerable range of observation, and a very attentive consideration of the subject have

long since led us to compress the voluminous *principles* laid down by authors into a very narrow compass—we had almost said into a nutshell. Viewing fever then as an effort of Nature to resist some morbid impression, or expel some morbid miasm, we consider it the grand business of the practitioner to watch the several *functions*, and by relieving them when oppressed, thus protect the *structure* of the parts. In this office he will sometimes be obliged to control the action of excited organs, and excite the action of torpid ones—and if there be a general principle in the treatment of fever, this is the one most universally applicable at the bed-side of the patient. This principle scarcely requires elucidation to render it comprehensible by the meanest capacity; but we shall apply it to a few of the leading phenomena of fever.

We come to a patient at a very early period of fever, and where the individual, for instance, has been exposed to the contagion of typhus or concentrated marsh poison. We find the surface cold and pale, the pulse weak and quick, the breathing hurried and laborious, a sense of oppression at the precordia, disturbed intellect, diminished secretions. What can be more evident than that the whole balance of the circulation and of the excitement is here deranged. The skin and secretory organs are torpid—and the blood is oppressing the vital viscera. What does the principle in question point to under such circumstances?—To the very best mode of treatment. Apply the tepid bath to the surface to draw the circulation there—give warm diluting drinks for the same purpose—and act upon the various abdominal secreting organs, and on the skin, in order to restore their functions, which are for the time suspended.

But in a short time we see the whole phenomena reversed, as it were. We find the surface burning, the face flushed, the arteries throbbing, the capillaries injected, the intellect excited to delirium, and still the secretory organs locked up. Here then we are obliged almost exactly reverse the means we were before pursuing. The surface must be cooled by fresh air or gelid water—blood must be drawn, if the excitement run high, or any one organ appears to suffer more than the others—and the bowels must still be acted on. By these means, and without these means by the powers of Nature, a third state or condition of the system occurs, differing materially from either of the preceding. The skin and the secreting organs act, and the whole phenomena of fever suffer a great diminution, or entire, though temporary, solution. In this third state what are the indications?—To do nothing at all. But in the fourth state or remission, what do the *principles* of our systematic sticklers point to? To the use of an

empirical remedy, bark or arsenic, which their principles never discovered or dreamt of, and cannot even now explain!

But instead of these stages or conditions of the system being pretty distinctly marked, and sufficiently regular in their succession, we have too often, as in continued fevers, a medley of all the stages at the same moment, one part of the system being in a state of collapse or torpor, another in a state of excitement, and a third in a state of relaxation. Now in these amalgamations we do fearlessly aver that we have no other safe rule to follow but that of counteracting symptoms as they arise, and as they happen to predominate in one organ or set of organs more than in others. Our paramount duty, we repeat it, is to diligently watch the *functions* of the various organs, and, whenever any of them appear to labour disproportionately, to endeavour to relieve them by drawing off the current of the circulation and of the excitement by local or by general means. By a careful conduct of this kind, and by avoiding the *MEDICINA PERTURBATRIX*, except upon very urgent occasions, we shall give Nature the fairest chance of going safely through the peculiar cycle which the disease, the constitution, or the climate may require for the work of restoration.

The long laboured, and almost endless descriptions of the ever varying forms, features, and shades of fever, (which are never the same in two individuals) are far better calculated to make a book than a practitioner. In the first place, they cannot be retained in the memory; and in the second place, they would be useless if they were retained. The simple rules which we have sketched out here are those which we have found most applicable at the bed-side of sickness, and we apprehend that they will prove of no mean advantage to the young practitioner. We have, of course, only alluded to the indications, leaving the means of fulfilling these indications to the choice or discretion of the medical attendant. They are sufficiently well known.

And now to return to Dr. Good. In his observations on the remote causes of fever, he seems to coincide with Cullen that the two great sources are human and marsh effluvium, viz. contagion and a certain ærio-terrestrial influence or agent to which we have given the name of marsh effluvium or malaria. Dr. Good very properly remarks that there are a very considerable number of other causes than the above, which are capable not only of predisposing to, but of exciting the disease, as cold, intemperance, heat, the passions, and numerous other agents. We cannot agree entirely with the following sentiment of our author.

"And notwithstanding that it becomes us to speak with diffidence upon a subject respecting which we are so much in want of information, I may venture to anticipate that the evidence to be advanced in the ensuing pages upon the general nature and diversities of fever, will show that there is more reason for believing that the febrile principle produced by marsh and human effluvia is a common miasm, only varying in its effects by accidental modifications, and equally productive of contagion, than that it consists of two distinct poisons, giving rise to two distinct fevers, the one essentially contagious, and the other essentially uncontagious, as contended for by Dr. Cullen." 64.

Although we are advocates for *contingent* contagion in certain cases of marsh fever; yet, considering the very marked difference which almost invariably obtains between these and fevers from human contagion, we cannot admit the identity of miasm in both classes of disease. We agree with Dr. Good that "the marsh and oozy soil of inhabited countries is necessarily a combination of animal and vegetable matter," a fact to which most of our writers on marsh fevers seem, of late, to have shut their eyes, for they speak of nothing under such circumstances, but decayed or decaying vegetable substances; yet the product of this *vegeto-animal* poison we look upon, if the expression of its effects is to be taken into account, as different from the poison generated by the living body labouring under disease, as, for instance, under typhus fever.

With the exception of the 4th corollary in the following summary, we agree with our learned author in the justness of his conclusions.

"1. The decomposition of dead organized matter, under the influence of certain agents, produces a miasm that proves a common cause of fever.

"2. The whole of these agents have not yet been explored; but so far as we are acquainted with them, they seem to be the common auxiliaries of putrefaction, as warmth, moisture, air, and rest, or stagnation.

"3. The nature of the fever depends, partly upon the state of the body at the time of attack; but chiefly upon some modification in the powers or qualities of the febrile miasm, by the varying proportions of these agents in relation to each other, in different places and seasons. And hence, the diversities of quotidian, tertian, and quartan; remittent and continued fevers, sometimes mild and sometimes malignant.

"4. The decomposition of the effluvia transmitted from the living human body, produces a miasm *similar to that generated by a decomposition of dead organized matter*, and hence, capable of becoming a cause of fever under the influence of like agents.

"5. The fever thus excited, is varied or modified by many of the same incidents that modify the miasmatic principle when issuing

from dead organized matter; and hence, a like diversity of type and vehemence.

"6. During the action of the fever thus produced, the effluvium from the living body is loaded with miasm of the same kind, completely elaborated as it passes off, and standing in no need of a decomposition of the effluvium for its formation. Under this form it is commonly known by the name of febrile contagion. In many cases, all the secretions are alike contaminated; and hence, febrile miasm of this kind is often absorbed, in dissection, by an accidental wound in the hand, and excites its specific influence on the body of the anatomist.

"7. The miasm of human effluvium is chiefly distinguishable from that of dead organized matter, by being less volatile, and having a power of more directly exhausting or debilitating the sensorial energy, when once received into the system. Whence the fevers generated in jails or other confined and crowded scenes, contaminate the atmosphere to a less distance than those from marshes and other swamps, but act with a greater degree of depression on the living fibre.

"8. The more stagnant the atmosphere, the more accumulated the miasmatic corpuscles from whatever source derived; and the more accumulated these corpuscles, the more general the disease.

"9. The miasmatic material becomes dissolved or decomposed in a free influx of atmospheric air; and the purer the air the more readily the dissolution takes place; whence, *é contrario*, the fouler as well as more stagnant the air, the more readily it spreads its infection.

"10. Under particular circumstances, and where the atmosphere is peculiarly loaded with contamination, the miasm that affects man, is capable also of affecting other animals.

"11. By a long and gradual exposure to the influence of febrile miasm, however produced, the human frame becomes torpid to its action, as it does to the action of other irritants; whence the natives of swampy countries, and prisoners confined in jails with typhus contamination around them, are affected far less readily than strangers; and, in numerous instances, are not affected at all.

"12. For the same reason, those who have once suffered from fever of whatever kind hereby produced, are less liable to be influenced a second time; and, in some instances, seem to obtain a complete emancipation." 77.

We cannot enter on a consideration of the individual species and varieties of fever detailed in an able and interesting manner by our author, in the first 200 pages of the second volume. The student will there find a great deal of information collected from various sources—the lecturer, much to furnish out his discourse to his pupils—and the practical physician something to smile at, occasionally, in the conflicting doctrines and hypotheses brought forward each in its turn, "to strut and fret its hour upon the stage."

The third order of this class embraces the subject of inflammations, and occupies more than 300 pages of letter press. It is not much to be expected that Dr. Good should loose or cut the Gordian knot of inflammation. We are much mistaken if the following summary of "the little that we know upon the subject" might not have been comprised in a still smaller space than our author has allotted to it.

"The little that we know upon the subject may, perhaps, be comprised in a few words:—The standard of firm health is the best guard against inflammations of every kind, or the state in which a man is least susceptible of them; and a deviation in either direction, whether toward a habit of *entony* or of *atony*, *capacifies* him for breeding them. But it does not *capacify* him equally; for in the latter case they are produced far more easily and generally than in the former. In *fibrous entony*, obstruction appears to take place, and inflammation to follow, from an increased tendency to constriction and rigidity in the muscular tunic of the arteries generally, and an actual constriction in those of the part affected; in consequence of which the diameter of the tube is diminished, and the blood, though urged by a stronger impetus from behind, works onward with less freedom than usual. In *fibrous atony*, obstruction takes place from the relaxed and yielding state of the vessels, which admit grosser corpuscles of the blood than what naturally belong to them, and thus become accessory to the error loci of the Boerhaavian school. But a mere error loci is not sufficient for inflammation: since the erratic corpuscles are readily forced back, or pass diagonally into larger vessels from the numerous anastomoses that prevail in the arterial system. Of this we have a pertinent example in the red suffusion which frequently takes place in the tunica albuginea of the eye, which is often an effect of weakness alone, is unaccompanied with heat or pain, and consequently with inflammation, and perhaps passes off by the next day. In addition, therefore, to the relaxed state of fibres, and the error loci before us, there must be something of that irritability which is so frequently an attendant upon relaxed and mobile organs, and which produces spasmodic and contractile action in a far higher degree. though, perhaps, in irregular fluxes and refluxes, than any habitual firmness or rigidity of fibre does at any time." 233.

If Dr. Good was able to form any clear idea of the foregoing theory of inflammation, it is far more than we have been able to do. Well might he say in the succeeding paragraph, "concerning the proximate cause of inflammation there is yet much to be unravelled." We have marked in italics a few words which show Dr. Good's propensity toward unusual terms and expressions.

Our author has given us a tolerably fair statement of what we know respecting the remote causes, and a few of the laws

which seem to govern inflammation ; yet even in this portion of the work we think we could "pick some holes in his skirt," were we inclined to be critical. Thus in our author's zeal to show the "wise and beneficent laws of Providence," as exemplified in the tendency of suppurations to point outwards, we imagine Dr. G. has rather overstepped the mark.

"Thus," says he, "if an inflammation attack the peritoneum covering an intestine, and adhesions are hereby produced between the two, the inflammatory action works upwards through the thick walls of the abdominal muscles, while the proper coats of the intestines in most instances remain sound." 239.

Now in the course of nearly 30 years' experience, we do not recollect to have ever seen an instance where, in peritoneal inflammation, the inflammatory action worked its way outwards ; but we have seen many instances where erosions of the intestinal coats obtained, and where there was extravasation of fecal matters into the common cavity of the abdomen. So far then from Dr. Good's position being the general rule, we should be inclined to look upon it as the exception.

Again, in the next page, our author lays it down, that "simple or *healthy inflammation* is a *remedial process* for restoring a part to soundness, when affected by a morbid impression that has a tendency to injure or destroy it." Yet, in the same page, when speaking of the treatment, he lays it down as a fundamental principle, that we should endeavour "to make a new impression upon the part, and to oppose a healthy or remedial, to an *unhealthy and mischievous action*." Here then, *healthy inflammation*, which is a *remedial process* in the beginning of the page, is an *unhealthy and mischievous action* at the close of it. There appears some incongruity in these statements.

Of the individual inflammations it will not be in our power to speak. In general Dr. Good has amassed a great body of information on each particular subject ; but here and there we observe a very defective state of his pathological researches. This defect is particularly conspicuous in his chapters on inflammation of the lungs and their investing membranes. Thus, in peripneumony we have the terminations in effusion, suppuration, and gangrene : but he does not notice the consolidation or hepatization, as it has been called, of the pulmonary structure ; a very common termination of inflammation, acute and chronic. The following passage contains the whole of our author's pathology of pleurisy.

"Like the preceding species also, pleurisy terminates in resolution, suppuration, and gangrene. The former is the ordinary an"

most favourable issue. The last occurs rarely ; but suppuration is by no means uncommon ; in which case, if the abscess do not point outwardly, an empyema will necessarily follow ; and the formation of pus is indicated by a remission of the pain, one or more shivering fits, and, in some instances, a sense of fluctuation. This, however, is a termination far more common to pleurisy from external injuries, than from internal causes." 366.

Yet, in nine cases out of ten of fatal pleurisy, the termination is by sero-purulent effusion into the cavity of the chest, without any thing like an abscess pointing outwardly. It is well ascertained, also, that in all cases of acute pleuritis, there is more or less of serous effusion, which becomes absorbed, in the event of recovery, leaving or not, according to the extent of the disease, adhesions between the pleura pulmonalis and pleura costalis. In a new edition, Dr. Good must extend greatly his pathological researches ; and on the subject of pulmonic affections, he cannot draw from a better source than the investigations of Laennec and Baron.

By the way we have some fault to find with Dr. Good in his treatment of pulmonary inflammation. "The best, the easiest, and even the natural cure of peripneumony is expectoration." We cannot subscribe to this doctrine. It is the *natural* cure no doubt, because Nature has no other way of unloading the vessels, without great danger. But by a prompt and decisive depletion we will very often save Nature the trouble of even expectoration—at least the inflammation may be frequently subdued before any expectoration appears, which will be then very trifling in quantity.

Again, Dr. Good takes no notice of antimony in the treatment of pneumonia, excepting as an occasional auxiliary to saline draughts in determining to the skin and promoting diaphoresis. "One of the most common, and, at the same time, most useful refrigerants, is nitre ; which may be combined with the citrate of potash, or made to produce a more certain determination to the skin by the addition of camphor or of antimomial wine, or by a combination with the citrate or acetate of ammonia." This is all that is said of antimony as a powerful controller of the circulation, taken in doses just sufficient to produce nausea, especially when aided by digitalis, another important remedy which we do not observe in Dr. Good's *methodus medendi*.

Our author, however, strongly recommends the action of full vomiting, (by what medicine is not said) and that kept up for an hour or two, even when the pulmonic inflammation "has made considerable advance." Not having given the measure a trial, it would not be fair to condemn it ; but, we confess that, beyond nausea, we should be afraid to proceed

in inflammation of such an organ as the lungs or their investment.

Our author notices the dangerous phenomenon of suppressed expectoration in the progress of pneumonia. We have seen it caused by an incautious cathartic, and we know of no medicine so powerful in restoring it, as the carbonate of ammonia in doses of ten grains frequently repeated.

We shall pass on to the subject of dysentery. It is always disagreeable to us to take up the review of systematic works, because analysis is not applicable to them, and criticism is the paramount duty of the reviewer in such cases. It is his main object, also, to point out what he conceives to be errors or imperfections, for the good both of the author and public; what he passes unnoticed being considered as having his approval. This is the path which we are unavoidably compelled to pursue in the work before us; and if our articles are chiefly composed of censures, it is because we cannot possibly even enumerate the chapters and sections of valuable matter diffused through these volumes.

The dissertation on dysentery not only disappointed, but almost provoked us. During the last memorable war, our fleets and armies were dispersed over every part of the globe, and our medical officers collected a mass of important information on the subject in question, such as had never before been collected or recorded. Yet, not a single writer of the last twenty or thirty years does our author seem to be acquainted with,—or, if acquainted with, has he noticed. Dr. Harty, who some fifteen or twenty years ago, made dysentery the theme of his inaugural dissertation at Edinburgh, is the only author quoted since the antiquated publication of Mosely some thirty years ago! Even Harty is only noticed as having accidentally fallen into our author's hands, after part of his chapter on dysentery was composed. In fact, it appears to us that Dr. Good, not liking to take the trouble of looking around him to see what was the existing state of our knowledge on the subject of dysentery, as scattered through all our periodicals and many distinct and excellent monographs during the last twenty years, has contentedly fallen back upon Sydenham, and determined "to take him as our polar star"—Sydenham who, it is our firm belief, never examined a dead body after he left his academical studies—at least he has given us no indication of pathological knowledge in any of his works.

We shall not enter into particular criticism on a chapter

* See page 449 of vol. ii.

which, we are most reluctantly constrained to say, is unworthy of our author. In the etiology and pathology there is no information at all—and what little is said of practice, is, generally speaking, erroneous, bad, and antiquated. In another edition Dr. Good had better cancel the whole of this chapter, and consult those modern authors who saw and felt dysentery in various climates—who dissected their patients, and consequently became acquainted with the pathology of the disease—who discarded the unfounded Cullenian notion of contagion—who treated the malady with *success*, notwithstanding the dogma of Mosely to the contrary—and who, finally, have exhibited a more enlightened *ratio symptomatum* than his favourite Sydenham did, whose genius could only reach the sublime theory, that dysentery “was a fever turned in upon the guts.”

The next subject discussed by Dr. Good is *bucnemia sparganosis*, or phlegmatia dolens. The only authors quoted are White, Trye, Ferriar, Hull, and Denman. He makes no allusion to the able investigation of Dr. Dickson of Clifton, in the second volume of the quarterly series of this journal; nor does he advert to the circumstance that phlegmatia dolens has occurred in the unimpregnated state, and even in the male. An instance of this last was met with in a marine by Dr. Denmark, then surgeon to Haslar Hospital, who has published the case and a plate of the limb—another instance happened in the person of Dr. Purdy of New-York—and a third in the practice of the late Mr. Baynton of Bristol. Bating these deficiencies in the history of the disease, Dr. Good's account, though short, is sufficiently correct, and the therapeutic plan judicious. The latest information which we have been able to obtain respecting the pathology of the disease is, that it depends, sometimes at least, on inflammation of the great inguinal vein. A physician-accoucheur of this metropolis has some preparations, we believe, showing this circumstance, and means to publish on the subject.

Acute rheumatism occupies but seven pages of the volume under review, which is by far too short a space, when we consider the importance of the subject. Dr. Good has taken no notice of that very dreadful disease, rheumatic metastasis to the heart, which, for many years past, has occupied much the attention of the medical world.

In the chapter on gout we see nothing that need detain us. It also is rather short, when we consider what ponderous tomes have been written on the subject. Dr. Good, who appears to have had some visitations of the disease in his own person, seems not disinclined to a limited application of cold to the part arthritically inflamed; but acknowledges that he

has never been able to muster up courage to put in execution that striking peculiarity of practice recommended, some years ago, by Dr. Balfour, namely percussion and compression. "But our sheet-anchor," says he, "is opium; and it should be given freely, and in union with some preparation of antimony, so as to act towards the surface generally, and thus restore to the living power its interrupted equilibrium."

On the subject of the exanthematous diseases, including plague, there is a very fair body of information brought forward by our author, but nothing novel, of course; we must therefore pass over this entirely, and here close our article, having already overstepped our boundary. In a future number we shall pursue our examination of these volumes.

X.

A Treatise on Dislocations and Fractures of the Joints. By SIR ASTLEY COOPER, Bart.

[Second and final Analytical Article. Concluded from p. 640, No. 11.]

OUR readers are aware, that in our last number, we gave a very full analysis of that division of Sir Astley Cooper's work, which embraced the important subject of dislocations and fractures at and about the hip-joint. The next series of accidents treated of by our author are—

Dislocations of the Knee. The articulating cavities of this joint are shallow, and on that account would be liable to dislocation, but their surfaces are broad, which counterbalances this liability. We shall not enter on the anatomy of this joint, which is ably sketched in the work before us, but proceed at once to the accidents to which it is obnoxious. The first is dislocation of the patella, which may take place in three directions—outwards, inwards, and upwards. Of the lateral dislocations, the outward one is the most frequent. "In either of these cases the ligament will be torn unless there be previous disease." The mode of reduction in both instances is as follows:—The patient is to be placed in a recumbent posture, while an assistant raises the leg by lifting it at the heel, thus relaxing the extensor muscles on the thigh. The surgeon is then to press down that edge of the patella which is most remote from the joint, be it one mode of luxation or the other, and this pressure raises the inner edge of

the bone over the condyle of the os femoris, when it is immediately drawn into position by the action of the muscles. An evaporating lotion is first to be applied, and, in a few days, it may be bandaged.

Dislocation upwards. Here the ligamentum patellæ is torn through by the action of the rectus, and the effect of the injury is to draw the patella upwards upon the fore part of the thigh-bone. The appearances are so obvious as to need no description. A smart inflammation follows this accident.

“In the treatment of this injury, local depletion and evaporating lotions are to be used from four to seven days from the accident, and then a roller is to be applied around the foot and upon the leg, to prevent its swelling; the leg is to be kept extended by a splint behind the knee, and a bandage composed of a leather strap is to be buckled around the lower part of the thigh; to this is to be attached another which is to be carried on each side of the leg, and under the foot, and is to be buckled to the circular strap; thus the bone is gradually drawn down, so as to allow of an union of the ligament. In a month the knee may be slightly bent, and as much passive motion daily given as the patient is able to bear; by these means the ruptured ligament becomes united, and the patella retains its motion.” P. 182.

While the bandage is worn the patient should persevere in the sitting posture, in order to keep the rectus muscle relaxed and prevented from acting on the patella.

Dislocation of the Tibia at the Knee Joint. This may happen in four ways—two of them incomplete and lateral—the others perfect luxations, the tibia being thrown either backwards or forwards. The lateral dislocations are but rare, and are easily reduced merely by extension.

Dislocation forwards. In this accident which is uncommon, the external marks of the injury, when the patient is recumbent, are these—the tibia is elevated, the thigh bone is depressed and thrown somewhat to the side as well as backwards—the os femoris compresses the popliteal artery, and renders the pulsation in the anterior tibial imperceptible—the patella and tibia are drawn by the rectus muscle forwards. In a case of this kind, brought into Guy's Hospital in the year 1802, the limb was easily reduced by extending the thigh from above the knee, and by drawing the leg from the thigh and inclining the tibia a little downwards.

Dislocation backwards. This must be also a rare occurrence, as Sir Astley relates but one case, and that happened in the practice of Dr. Walshman. The appearances are—

a shortened state of the limb, a projection of the condyles of the os femoris, and depression of the ligament of the patella, the leg being bent forwards. It is to be reduced by extension.

Partial Luxations. Under extreme degrees of relaxation, or much synovial secretion, the ligaments of the knee-joint may become so much lengthened as to allow the cartilages to glide upon the surface of the tibia, particularly when pressure is made by the thigh-bone on the edge of the cartilage. The most frequent cause of the accident is the toe striking against any projection, as the fold of a carpet, when the person is walking and the toe everted. He immediately feels pain in the knee, which he is unable completely to extend. The explanation we shall give in our author's own words.

"The semilunar cartilages which receive the condyles of the os femoris are united to the tibia by ligaments, and when these ligaments become extremely relaxed and elongated, the cartilages are easily pushed from their situation by the condyles of the os femoris, which are then brought into contact with the head of the tibia, and when the limb is attempted to be extended the edges of the semilunar cartilages prevent it. How then is the bone to be again brought upon the cartilages? Why, as Mr. Hey has advised, by bending the limb back as far as is possible, which enables the cartilage to slip into its natural situation, from the pressure of the thigh-bone being removed in the bent position, and the leg being brought forwards it can then be completely extended, because the condyles of the os femoris are again received on the semilunar cartilages." 191.

This plan is not invariably successful, as our author shows by an interesting case.

Of compound dislocations of the knee-joint Sir Astley has only met with one instance; he, therefore, concludes it to be one of very rare occurrence. No accident more imperiously demands immediate amputation. The case happened at Brentford, and Sir Astley amputated the limb on the same night. The patient recovered.

Fractures of the Patella. This bone is generally fractured transversely—rarely longitudinally. Compound fracture of this little bone but seldom occurs. In transverse cases the upper fragment is drawn, of course, from the lower by the action of the large muscles of the thigh, the degree of separation depending on the extent of laceration of the capsular ligament; for when the latter is but little torn, the separation will not be more than half an inch—which extends to four or five inches, where much injury is sustained by the ligament.

"The accident may be at once known by the depression between the two portions of bone; by the fingers passing readily down to the condyles of the os femoris into the joint as far as the integuments will permit; and by the elevated portion of bone moving readily on the lower and fore part of the thigh. The power of extending the limb immediately after the accident is lost, and likewise that of supporting the weight of the body on that leg, if the person be standing, for the knee bends forwards from the loss of action in the extensor muscles. The pain of this accident is not very severe, and a simple fracture is not dangerous, for the constitution feels it but little. In a few hours after the accident, a considerable degree of extravasation of blood takes place upon the fore part of the joint, so that the appearance is livid from ecchymosis, but this is removed by absorption in a few days. Considerable inflammation and fever succeed, and there is a great degree of swelling in the fore part of the joint, both from the free secretion of synovia, and the effusion arising from inflammation. No crepitus is felt in this fracture, for the bones cannot be brought sufficiently near each other to give this general discriminating mark of other fractures." 202.

The accident arises from external violence or the sudden action of the muscles. The solution of the latter circumstance is not difficult. When the knee is bent, the patella is drawn down on the end of the condyles of the os femoris, so as to bring the upper edge of the bone forwards, and it is at that moment the patella is broken by the rectus muscle not acting in a line with the bone, but at right angles with it, or nearly so, and upon its upper edge more particularly.

The union is generally by a ligamentous substance, whether the separation of the fractured portions be great or inconsiderable. The internal articular surface of the bone preserves its natural smoothness. Blood is immediately deposited in the place of the injured ligament, but is absorbed in a few days. Inflammation arises and pours out adhesive matter, which extends from one edge of the lacerated ligament to the other, and even between the bones, to each of which it is firmly united. Vessels shoot from the edges of the ligament, and organize the new substance. Our ingenious author has made many experiments on animals, in order to trace the mode of union in this bone. Although osseous union rarely takes place, the principle which is to guide the surgeon is to make the intervening ligament as short as possible.

"When called to this accident the surgeon places the patient in bed upon a mattress, extends the limb upon a well padded splint placed behind the thigh and leg, to which it is tied, and which splint should be hollowed. The patient's body should be raised as much as he can bear to the sitting posture, to relax the rectus muscle. An

evaporating lotion is to be then applied upon the knee consisting of Liq. Plumbi acetat. dilut. 3v. with Spir. Vini 3i. and no bandage should be first employed. The body should be slightly raised in bed to relax the rectus muscle, and the heel should be raised to bring up the lower portion of the patella. If, on the succeeding day or two, there be much tension or ecchymosis, leeches should be applied, and the lotion be continued; when, after a few days, the tension has subsided, then, and not till then, should bandages be employed." 208.

After detailing the means usually employed by others, Sir Astley states the following mode to which he gives the preference.

"A leather strap should be buckled around the thigh, above the broken and elevated portion of bone, and from this circular piece of leather, another strap is passed under the middle of the foot, the leg being extended, and the foot raised as much as possible. This strap is brought upon each side of the tibia and patella, and buckled to that which is fixed around the lower part of the thigh. The strap may be confined to the foot by a tape tied to it, and to the leg at any part in the same manner; and this is the most convenient bandage for the fractured patella, and for the patella dislocated upwards by the laceration of its ligament.—A roller is to be applied upon the leg." 209.

In this position, and thus confined, the limb is to be kept for five weeks in the adult, and for six weeks at a more advanced age. Then slight passive motion is to be begun with great circumspection, lest the ligament, if not firmly united, should give way, and the bones again recede. After *passive* motion has been used for some time, the patient should be placed on a high seat and directed to swing the leg, so that the action of the rectus muscle may be gradually restored; for it is to be remarked that, in those who are kept in bed with the joint at rest, the power of bending and extending the limb is not acquired for many months. When the rectus muscle has been shortened, and the upper portion of bone is drawn from the lower, all disposition to action in the muscle ceases, and it does not recover its voluntary action until it becomes again elongated, which is effected after the union of the ligament by bending the knee, from which point of elongation the muscle begins to contract.

It is obvious that the degree of approximation in the bones is of great importance. The less the distance the greater is the power which the muscle re-acquires, and the less chance of falls and fractures afterward.

Perpendicular Fractures of the Patella. A body was lately dissected in St. Thomas's Hospital, where both the patellæ were fractured longitudinally, and although they were

almost in contact, they were both united by ligament. These circumstances surprised our author, and he made several experiments on animals to elucidate the phenomenon. It resulted from these experiments that the want of osseous union in fractures, whether longitudinal or transverse, of the patella, arises from the parts not being in actual contact. Where they are kept in contact ossific agglutination takes place.

"In the longitudinal or perpendicular fracture of the patella, the best treatment consists in extending the leg, and in using local depletion and evaporating lotions; in a few days a roller should be applied round the limb, and then a laced knee-cap, with a strap which buckles round the knee above and below the patella, with a pad on each side to bring its parts as nearly as possible into contact." 215.

Compound Fractures of the Patella are very dangerous, on account of the exposure and inflammation of the knee-joint. Two of the four cases related by Sir Astley died, the limbs being attempted to be saved. The two fatal cases were under the care of Mr. W. Cooper and Mr. Birch. The fourth case is a very interesting and important one.

Mr. Redhead, of Kennington Cross, aged 39, was thrown from his gig against a cart-wheel, by which the patella was shattered and the joint opened. Sir Astley was called in by Mr. Dixon, and found a wound on the fore part of the knee, through which he readily passed his finger into the joint, finding the patella shattered into several pieces, one of which was removed. The patient being of a spare habit, and placid irritable disposition, it was agreed not to amputate. Knowing the difficulty of keeping the wound closed on account of the continued discharge of synovia, a suture was passed through the integuments, taking great care not to include any portion of the capsular ligament. Adhesive plaster and a roller finished the dressings, which were kept wet with spirituous lotions. The leg was placed in the extended position, and to be kept perfectly quiet. The patient to live on fruit. There was no swelling or inflammation of consequence, and the patient recovered without any untoward accident.

"If the laceration be extensive, or the contusion very considerable in these cases, the operation of amputation will be required; but if the wound be small, and the patient be not irritable, and no sloughing of the integuments or ligament is likely to occur from the nature of the accident, it will be best to try to save the limb; and the treatment of Mr. Redhead's case is that which I should pursue. The principal object is to produce adhesion immediately, and every means in our power must be used to effect it. I know well that sutures are generally objectionable, and I never employ them if I can possibly succeed without them, but in moveable parts, in those which are un-

supported, and in those through which a secretion is liable to force its way, they are not only justifiable but highly necessary." 219.

Oblique Fractures of the Condyles into the Joint are of rare occurrence, and generally produce deformity. They are known by the great swelling of the joint, by the crepitus, and by the deformity with which they are attended. Whether the internal or external condyle be broken, the treatment will be the same. The limb is to be placed on a pillow, in the straight position, and evaporating lotions and leeches are to be used to subdue the swelling and inflammation. When this is effected, a roller is to be applied round the knee, and a piece of stiff pasteboard, about sixteen inches long, and wide enough to extend entirely under the joint, passing on each side of it, so as to reach the edge of the patella, is to be applied, having been previously dipped in warm water, and afterward secured by a roller. In five weeks, passive motion may be gently employed to prevent ankylosis. Our author relates a fatal case of compound fracture of this kind, and he has known instances of the simple fracture proving mortal in aged persons.

Oblique Fractures of the Thigh-Bone just above the Condyles are formidable injuries in respect to the future form and use of the limb, being very liable to produce deformity, and prevent flexion of the knee-joint. We shall give the pathology in Sir Astley's own words.

"The appearances which the accident produces are, that the lower and broken extremity of the shaft of the bone projects, and forms a sharp point just above the patella, which pierces the rectus muscle, threatens to tear the skin, and sometimes does so; whilst the patella, tibia and condyles of the os femoris sink into the ham, and are drawn upwards behind the broken extremity of the shaft of the os femoris." 226.

Several interesting cases are related in elucidation, but these we must pass over. To obviate the evils attendant on this unfortunate accident, Sir Astley has had an apparatus constructed to preserve the thigh in a constant state of extension, of which he has given a plate. The leg is to be first bent, to draw the rectus muscle over the broken extremity of the bone, and then the apparatus is to be applied, and the limb is to be preserved in a constant state of extension in the straight position.

Fracture of the Head of the Tibia. If the fracture extend into the knee-joint, the treatment is the same as for oblique fracture of the condyles of the femur, that is—the straight position, a roller to press one part of the broken surface against

another—and, thirdly, a splint of pasteboard to assist in the preservation of that pressure. Early passive motion will here also be proper to prevent anchylosis.

If the fracture of the tibia be oblique, but not into the joint, Sir Astley recommends the limb to be placed upon the double inclined plane, the weight of the leg keeping the limb constantly extended, and thus bringing the bones into as accurate apposition as the nature of the fracture will permit.

Dislocations of the Caput Fibulae. This accident may arise from relaxation, or from external violence. Our author has seen but one instance of the latter, and that was connected with compound fracture of the tibia.

“Dislocations of the head of the fibula from relaxation, are more frequent than those which occur from violence, and the head of the bone is in these cases thrown backwards, and is easily brought into its natural connexion with the tibia, but it directly again slips from its position. This state produces a considerable degree of weakness and fatigue in walking, and the person suffers much from exercise. As in these cases there is a superabundant secretion of synovia, and a distention of ligament, repeated blistering is required to promote absorption; and afterward a strap is to be buckled around the upper part of the leg, to bind the bone firmly in its natural situation, to which a cushion may be added behind the head of the bone, to give it support, and at least prevent the increase of the malady.” 237.

We shall pass over the very important section in our excellent author's work on Dislocations, simple and compound, of the Ankle-joint and Foot, as we have some idea of introducing the subject as a separate article in a subsequent number of the Journal. It has already formed a distinct analytical paper in our quarterly series. We shall, therefore, pass on to other subjects.

Dislocations of the Clavicle. These are easily enough understood and reduced. Thus, when the sternal extremity is dislocated forwards, the clavicle is easily returned to its place by pulling the shoulder backwards, by which the end of the bone falls into its place, whence, however, it will start forward again, if pressure be not made on the fore part of the bone. The principle, therefore, upon which the extension is made, is to draw the scapula as far from the side as is practicable without inconvenience; and, secondly, to support the arm, to prevent the weight from influencing the position of the bone. The first of these objects is effected by the clavicle bandage, which is a modification of the common figure of 8 bandage—the second object is obtained by putting the arm in a sling.

Here our author relates a very daring operation performed by the late Mr. Davie, surgeon, of Bungay, in the removal of

an inch of the sternal extremity of the ~~scapula~~, in a case of distorted spine, where the said extremity of the bone was thrown by an accident behind the sternum, pressing so much on the œsophagus, as to produce extreme difficulty of deglutition. The dysphagia was removed, and the patient lived six years afterward.

The dislocation of the scapular extremity of the clavicle is much more frequent of occurrence. The easiest mode of detecting this accident is to place the finger upon the spine of the scapula, and to trace this portion of bone forward to the acromion in which it ends. The finger is stopped by the projection of the clavicle over it, and so soon as the shoulders are drawn back, the point of the clavicle sinks into its place, re-appearing when the shoulders are let go. In this injury, the capsular ligament is necessarily torn through, as well as the external ligament going from the coracoid process to the clavicle. It is scarcely probable, Sir A. thinks, that the clavicle should be dislocated in any other direction than upwards—at least, he has never seen an instance of its gliding under the acromion. The cause of this accident is a fall upon the shoulders, by which the scapula is forced inwards towards the ribs.

“In the treatment of this accident, I adopt the following plan:—The assistant standing behind the patient, puts his knee between his shoulders, and draws them backwards and upwards, when the clavicle sinks into its socket. A thick cushion is then placed in each axilla, with three views; First, to keep the scapula from the side: Secondly to raise the scapula: Thirdly to defend the axillæ from being hurt by the bandages: on which last account, a cushion is employed on each side. Then the clavicle bandage is applied, and its straps should be sufficiently broad to press upon the clavicle, scapula, and the upper part of the os humeri, to keep the former down, the scapula upwards and backwards, which is the chief object, and the arm backwards and elevated. To secure these objects more effectually, the arm is to be suspended in a short sling, by which, it is made to support the scapula in its proper situation.” 407.

With the utmost care and attention, still some slight deformity will remain, which should be stated to the patient at the beginning, to prevent reflections afterward.

Dislocations of the Os Humeri. Sir Astley prefaces this section with an anatomical description of the mechanism of this joint, into which it will not be necessary for us to enter. The head of the humerus is liable to be thrown from the glenoid cavity of the scapula, in four directions—three of these dislocations being complete, and one being only partial. 1st, downwards and inwards into the axilla, the bone resting on the inner side of the inferior costa of the scapula:—2d, for-

wards under the pectoral muscle, the head of the bone being placed below the middle of the clavicle, and on the sternal side of the coracoid process :—3d, backwards, the head of the bone being felt and distinctly seen forming a protuberance on the back and outer part of the inferior costa of the scapula, the head of the humerus itself being situated upon its dorsum :—4th, partial, the anterior portion of the capsular ligament being torn through, the head of the bone resting against the coracoid process of the scapula on its outer side.

The dislocation downwards into the axilla is extremely common, and its characters are obvious enough. A hollow is produced below the acromion—the natural roundness of the shoulder is destroyed—the arm is elongated—the head of the bone can be felt in the axilla, “but only if the elbow be considerably removed from the side,”—the motion of the arm is nearly lost, except forwards and backwards as it hangs by the side—some crepitus is occasionally felt on moving the limb, in consequence of inflammatory effusion, and the escape of synovia—the central axis of the arm is changed, the central line running into the axilla—occasional numbness of the fingers. These are the essential characteristics, the principal of which are the fall of the shoulder, the presence of the head of the bone of the axilla, and the loss of motion in the joint. But a few hours make these appearances much less decisive, from extravasation and swelling. These last subsiding, the marks of the injury again become decisive. It is at this period, generally, that metropolitan surgeons are consulted, and when dislocation is then detected, it is their duty to state candidly to the patients that the difficulty of detection is exceedingly diminished by the subsidence of tumefaction and inflammation. Here Sir Astley gives three interesting dissections of dislocations downwards—one immediately after the injury, another at a distance of five weeks from the date of the accident. These we must pass over.

Various are the means of reduction which have been employed by surgeons ; and they must vary according to the circumstances of the case. That which our experienced author usually adopts in private practice in all recent cases, is by the heel in the axilla.

“ The patient should be placed in the recumbent posture, upon a table or a sofa, near to the edge of which he is brought ; the surgeon then binds a wetted roller round the arm immediately above the elbow, upon which he ties a handkerchief ; then, with one foot resting upon the floor, he separates the patient’s elbow from his side, and places the heel of his other foot in the axilla, receiving the head of the *os humeri* upon it, while he is himself in the half-sitting posture by the patient’s side : He then draws the

an inch of the sternal extremity of the ~~scapula~~, in a case of distorted spine, where the said extremity of the bone was thrown by an accident behind the sternum, pressing so much on the œsophagus, as to produce extreme difficulty of deglutition. The dysphagia was removed, and the patient lived six years afterward.

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arm by means of the handkerchief, steadily for three or four minutes, when, under common circumstances, the head of the bone is thus easily replaced ; but if more force be required, a long towel may be applied instead of the handkerchief, by which several persons may pull, the heel still remaining in the axilla. I generally bend the fore-arm nearly at right angles with the os humeri, because it relaxes the biceps, and consequently diminishes its resistance. I have, in many cases, extended from the wrist, by tying the handkerchief just above the hand, but more force is required than in the former mode, although it has this advantage, that the bandage is less liable to slip. In recent cases, it very rarely happens that this mode of extension fails, and it is so easily applied in every situation, that I have recommended all our young men to employ it in the first instance, when called to this accident." 427.

Where, however, the muscles are very powerful, and the accident has occurred several days, allowing the muscles to become permanently contracted, the reduction requires a greater degree of force than can be applied in the above manner. The patient must be placed in a chair, and the scapula fixed by means of a bandage which allows the arm to pass through it, (the one used at Guy's is a girt buckled on the top of the acromion, so as to raise the bandage high in the axilla, thus more completely fixing the scapula, the principal object to be attended to, else all efforts will be inefficient,) a wetted roller is next to be bound round the upper arm, just above the elbow, and upon this a very strong worsted tape is to be fastened, (in a manner hereafter to be described when speaking of the reduction of dislocated fingers,) the arm should then be raised at right angles with the body ; or a little higher, if there be much difficulty of reduction ; two persons should then draw from the bandage affixed to the arm, and two from the scapula bandage, with a steady, equal, and combined force. Jerkings should be entirely avoided, and every aim at quick reduction discountenanced. "*Slowly and steadily* should be the word of command from the surgeon," who after the extension has been made some minutes, should place his knee in the axilla, resting his foot upon the chair ; he then raises his knee by extending his foot ; and placing his right-hand upon the acromion, pushes it downwards and inwards, when the head of the bone usually slips into its natural position. A gentle rotatory motion, during the extension, is sometimes productive of diminished opposition in the muscles. These means failing, we must have recourse to a third mode of reduction, viz. the *pulleys*—not with the view of employing *greater* force, for that could be obtained by more persons ; but with the view of applying *gradual and equal* force, without jerks and unequal extension.

which are sure to occur when manual strength is employed for any length of time.

“ For the application of the pulley, the patient sits between two staples, which are screwed into the wainscot, on each side of him ; the bandages are then applied, precisely as in the former mode, as when the extension is made by men, and the force is applied in the same direction ; the surgeon should first draw the pulley, as the class of people whom he usually has to assist him, being ignorant of the principle upon which it is employed, would use too great violence, he should draw gently and steadily, until the patient begins to complain of pain, and then cease, keeping up that degree of extension, and conversing with the patient to direct his mind to other objects. In two or three minutes, more force should be applied, and continued until pain be again complained of, when the surgeon should again cease to increase the force ; and thus he should proceed for a quarter of an hour, at intervals slightly rotating the limb. He should, when he has applied all the extension he thinks right, give the string of the pulley to an assistant, desiring that degree of extension to be supported ; then putting his knee in the axilla, and resting his foot upon the chair, he gently raises and pushes back the head of the bone towards the glenoid cavity, when the bone passes into its socket ; but generally without the snap which is heard when other means are employed, yet both the surgeon and the patient are aware of some motion of the head of the bone at the time.” 431.

In hospital practice Sir Astley orders the patient to be bled, and put into a warm bath at the temperature of 100 or 110, giving him a grain of tartrate of antimony every ten minutes until he becomes faint. He is then wrapped in a blanket, placed in a chair, and the extension made before the muscles have time to recover. When the reduction has been effected, a small cushion should be placed in the axilla, and fixed there by a stellate bandage, to prevent the head of the bone again slipping from its situation. The arm is also to be supported in a sling.

There is a fourth mode of reduction, *by the knee in the axilla*, which is applicable to recent dislocations, to delicate females, and to very old, relaxed, and emaciated persons.

“ The patient is seated upon a low chair, the surgeon then placing himself by him, separates the dislocated arm from the side sufficiently to admit his knee into the axilla, and resting his foot upon the side of the chair, he places one hand upon the os humeri, just above the condyles, and the other upon the acromion scapulæ, he then pulls down the arm, over the knee, and in this manner reduces the dislocation.” 433.

The ambe cannot be recommended where the extension is to be of any continuance, as its fixed point of action is on

the ribs of the patient, and cannot long be borne without injury.

Mr. Kirby's process of reduction, of which we have given a plate in the January (1820) number of this Journal is mentioned by Sir Astley as an ingenious method.

Dislocation forward. The phenomena of this species are more distinctly marked than in the former. The acromion is more pointed, and the hollow below it more considerable. The head of the os humeri can be distinctly felt, and in thin persons seen. The coracoid process of the scapula is placed on the outer side of the head of the bone—the arm is somewhat shortened—and it is thrown more from the side and farther back than in dislocation downwards—the axis of the limb is much altered, being thrown inwards towards the middle of the clavicle. “But the strongest diagnostic marks of this dislocation are, the head of the bone being below the clavicle—and the elbow separated from the side and thrown backwards.”

Reduction. The foot in the axilla, as in the former case, will generally succeed in this; but here the foot should be placed more forward to press on the head of the bone, and the arm should be drawn obliquely downwards and a little backwards. Where the accident has happened some days, continued extension will generally be necessary, and then the pulleys must be employed.

“The same bandage is required as in the dislocation in the axilla, whether the power used be through the medium of pulleys or of men. The arm should be bent to relax the biceps muscle; but the principal circumstance to be considered is, the direction in which the bone is to be drawn, and the best is slightly downwards, for if it be drawn in the horizontal direction, the head of the os humeri is pulled directly against the coracoid process of the scapula, and a difficulty created which may be avoided.” 439.

Dislocation on the Dorsum Scapulæ. Here the head of the humerus is thrown upon the posterior surface of the inferior costa of the scapula. It cannot be mistaken, as there is a protuberance formed by the bone upon the scapula which immediately strikes the eye. Only two cases have occurred in Guy's Hospital during 38 years. A case is stated from the practice of Mr. Toulman of Hackney, and two from the practice of Mr. Coley of Bridgenorth, an ingenious and very able practitioner. The reduction is not difficult, and does not materially differ from the process already described.

Partial Dislocation. Sir Astley thinks, is not of very rare occurrence, and is distinguished by the following marks:—

"The head of the bone is drawn forwards against the coracoid process; there is a depression opposite the back of the shoulder-joint, and the posterior half of the glenoid cavity is perceptible from the advance of the head of the bone; the axis of the arm is thrown inwards and forwards; the under motions of the limb are still capable of being performed; but its elevation is prevented, by the head of the humerus striking against the coracoid process; there is an evident protuberance formed by the head of the bone in its new situation, which is felt readily to roll when the arm is rotated." 446.

The mode of reduction is the same as that for the dislocation forwards; but it is necessary to draw the shoulders backwards to bring the head of the bone to the glenoid cavity. When the dislocation is reduced, the shoulder should be bound back by a clavicle bandage, else the bone will immediately slip forward against the coracoid process. An injury of excessive violence will sometimes occasion the head of the bone to be forced through the integuments in the dislocation forwards, an instance of which is inserted from the practice of Mr. Saumarez and Mr. Dixon of Newington. Such cases require an immediate reduction by the means already pointed out for the forward dislocation, and then the wound dressed *secundum artem*.

There are some fractures about the shoulder-joint that are liable to be confounded with dislocations.

Fracture of the Acromion. The roundness of the injured shoulder is lost—the head of the os humeri sinks toward the axilla—a depression at the junction of the spine of the scapula with the clavicle is felt, from the fall of the fractured portion. If the surgeon raises the arm from the elbow, so as to put the deltoid muscle in motion, the natural form of the shoulder is directly restored; but the deformity returns immediately the arm is again suffered to fall.

"Fracture of the acromion scapulæ will unite by bone, but it generally unites by ligamentous substance, in consequence of the difficulty which exists in producing adaptation, and in preserving the limb perfectly at rest during the period required for union. In the treatment of this accident, the head of the os humeri is the splint which is employed to keep the acromion in its natural situation; and with this view, the elbow is raised, and the arm is fixed; thus the bone will be raised to the under surface of the acromion, and if it be kept steadily in that position, it will support and keep in its place, the broken process. The deltoid muscle should be also relaxed, and this is best effected by a cushion being placed between the elbow and the side, for if the elbow be brought close to the side, the broken acromion is further separated. The arm should be raised as much as is possible, and the elbow be carried a little backwards, and then bound to the chest by a roller; in this position it should

he kept firmly fixed for three weeks, doing every thing to prevent any motion of the bone. Very little inflammation succeeds this accident, and the disposition to ossific union is very feeble in the separated portions of bone.

"In this case, if a pad be placed in the axilla, the broken portion becomes widely separated from the spine of the scapula, by its having the effect of throwing out the head of the os humeri." 456.

But the accident most liable to be mistaken for dislocation is fracture through the narrow part of the cervix scapulæ, immediately opposite the notch of the superior costa; by which the glenoid cavity becomes detached from the scapula, and the head of the bone falls with it into the axilla. The shoulder in this case falls—there is a hollow below the acromion, from the deltoid muscle sinking—and the head of the os humeri can be felt in the axilla. The degree of deformity in this accident depends on the extent of laceration of the ligament which passes from the under part of the spine of the scapula to the glenoid cavity, and which is not generally described in anatomical books. If this be torn, the glenoid cavity and head of the os humeri fall deeply into the axilla, but the displacement is much less if this remain whole.

"The diagnostic marks of this accident, are three; *first*, the facility with which the parts are replaced; *secondly*, the immediate fall of the head of the bone into the axilla, as the extension is removed; and *thirdly*, the crepitus which is felt at the extremity of the coracoid process of the scapula, when the arm is rotated. The best method of discovering the crepitus is, for the surgeon's hand to be placed over the top of the shoulder, and the point of the fore finger to be rested on the coracoid process, the arm being then rotated, the crepitus is directly perceived, because the coracoid process being attached to the glenoid cavity, and being broken off with it, although itself uninjured, the crepitus is communicated through the medium of this process." 458.

The treatment consists, *first*, in carrying the head of the os humeri outwards—and *secondly*, in raising the glenoid cavity and arm. The *former* is effected by a thick cushion being placed in the axilla, which presses the head of the bone and glenoid cavity outwards, and this may be confined by the clavicle bandage—the *latter* is produced by placing the arm in a short sling, and then the raised head of the os humeri supports the glenoid cavity and cervix scapulæ, keeping it steadily in its place till union is effected, which generally requires ten or twelve weeks in the adult.

Fracture of the Neck of the Humerus. This bone is sometimes broken just below its tubercles through the cervix. It is more frequent in the young and in the old—rarely oc-

curs in middle age. In this accident the head of the bone remains in its place; but the body of the humerus sinks into the axilla, where its extremity can be felt, and it draws down the deltoid muscle, so as to lessen the roundness of the shoulder.

"The best diagnostic marks are the following: embrace the head of the os humeri with the fingers and fix it, then rotate the arm at the elbow, and it will be found, that the head of the bone does not obey the rotatory motion, as it is separated from the body of the humerus by the fracture, which is, in this case, external to the capsular ligament. The bone, in these cases, unites in from three to six weeks, according to the age of the patient." 460.

Treatment. Apply a roller from the elbow to the shoulder joint—place a splint on the inner and outer side of the arm—confine all by means of a roller—place a cushion in the axilla, and support the arm *gently* in a sling.

Dislocations of the Elbow Joint. This section is prefaced by a good anatomical sketch of the mechanism of the part, for which we must refer to the original. The species of dislocations are five:—1st, Both bones dislocated backwards. 2. Both bones laterally. 3. The ulna dislocated from the radius. 4. The radius dislocated forwards. 5. The radius dislocated backwards.

1. *Both Bones dislocated backwards.* The shape of the elbow is altered—considerable projection posteriorly formed by the ulna and radius above the natural situation of the olecranon—hard swelling at the fore part of the joint behind the tendon of the biceps—hand and fore arm are supine, and cannot be rendered entirely prone—flexion of the joint in a great degree lost.

Reduction. "The patient is made to sit down upon a chair, and the surgeon places his knee on the inner side of the elbow-joint, in the bend of the arm, and taking hold of the patient's wrist, he bends the arm; at the same time, he presses on the radius and ulna with his knee, so as to separate them from the os humeri, and thus the coronoid process is thrown from the posterior fossa of the humerus; and whilst this pressure is supported by the knee, the arm is to be forcibly but slowly bent, and the reduction is soon effected. It may be also accomplished by placing the arm around the post of a bed, and by forcibly bending it whilst it is thus confined. I have also reduced the limb by making the patient, whilst placed upon an elbow chair, put his arm through the opening in its back, and then having bent the arm, the body and limb being thus well fixed, the reduction of the dislocation was easily effected." 469.

The arm should now be bandaged in the bent position—

evaporating lotions applied—and the limb supported in a sling, the fore arm bent at rather less than a right angle with the upper arm. A splint may be placed in a sling for the better support of the limb.

2. *Lateral Dislocation.* The projection of the ulna backwards is greater than in the former dislocation—the radius forms a protuberance behind and on the outer side of the os humeri, so as to produce a hollow above it—the rotation of the head of the radius is distinctly felt by rolling the hand. The reduction may be easily effected, as in the former dislocation, by bending the arm over the knee, even without particularly attending to the direction of it inwards or outwards.

3. *Dislocation of Ulna backwards.* The limb is much deformed by the twisting inwards of the fore arm and hand—the olecranon projects, and can be felt behind the os humeri—extension of the arm is impracticable—it cannot be bent to more than a right angle. These are its characteristics.

“This dislocation is more easily reduced, than that of both bones; and the best method is, by bending the arm over the knee, and to draw the fore arm downwards; it may then be easily reduced, as not only the brachialis muscle will act in resistance, but the radius, resting against the external condyle, will push the os humeri backwards upon the ulna, when the arm is bent.” 474.

4. *Dislocation of Radius forwards.* Our author has seen six examples of this accident. *Symptoms.* Fore arm slightly bent, but cannot be brought to a right angle with the upper; nor can it be completely extended. When it is suddenly bent, the head of the radius strikes against the fore part of the os humeri, and produces so sudden a stop to its motion as at once to convince the surgeon it is one bone striking against the other. Neither pronation nor supination can be completely performed. If the thumb be carried into the fore and upper part of the elbow joint, the head of the radius may be there felt, and if rotation of the hand be attempted, the bone will be perceived to roll. “This last circumstance, and the sudden stop to bending the arm, are the best diagnostic marks of the injury.” Of the six cases related, it appears that only two were reduced. The reduction, in fact, is exceedingly difficult, and has foiled a Cline and a Cooper. In two cases, however, Sir Astley was completely successful. Our author thinks the extension should be made from the hand alone (a suggestion which he candidly attributes to one of his pupils, Mr. Williams) “as from the connexion of the hand with the radius, that bone alone is acted upon, and by

excluding the ulna from the force applied, the radius sustains the whole extension." It is also right in making the extension that the hand be rendered supine, as this position draws the head of the radius from the upper part of the coronoid process of the ulna, upon which it is otherwise directed, and then to draw the fore arm by pulling the hand, and by fixing the os humeri.

The dislocation of the radius *backwards* our author has never seen in the living subject. One instance of the kind was brought into the dissecting room in the year 1821, from which a drawing is given by Sir Astley.

Fractures of the Elbow Joint. The condyles of the os humeri are sometimes obliquely broken off just above the joint, and the appearance produced is so similar to the dislocation of the radius and ulna backwards, that the two accidents are very liable to be confounded together. The mode of distinguishing the two injuries is, by all the marks of dislocation being removed by extension, and by their return so soon as the extension is withheld. In these accidents too, a crepitus can generally be felt when rolling the fore-arm upon the humerus. It is of much more frequent occurrence in children than in grown persons, though it happens at all periods of life.

"Its treatment consists in bending the arm, and drawing it forwards to effect replacement, and then a roller should be applied whilst it is in the bent position. The best splint for it is one formed at right angles, the upper portion of which is to be placed behind the upper arm, and the lower portion under the fore arm; a splint must also be placed upon the fore part of the upper arm, and straps to confine both; evaporating lotions should be used; and the arm kept in a bent position by a sling. In a fortnight, if the patient be young, passive motion may be gently begun, to prevent the occurrence of ankylosis; and in the adult, at the end of three weeks, a similar treatment is to be pursued." 482.

There is sometimes considerable loss of motion, notwithstanding the most judicious means have been employed.

Fracture of the internal Condyle of the Humerus. This portion of bone is frequently broken off, in which case the ulna projects backwards, having lost its support. If the fore arm be extended, the hand becomes twisted inwards toward the side; but, upon flexion, these appearances are removed. The above circumstances, and a crepitus on bending or extending the arm, will distinguish this accident from others. The treatment is the same as that for oblique fractures above the condyles of the humerus.

Fracture of the Olecranon. This process is not unfrequently broken off, and the symptoms are so evident, that they can scarcely be mistaken. There is pain, and a soft swelling at the back of the elbow, through which the surgeon's finger readily sinks into the joint—the olecranon can be felt in a detached piece—elevated, and moveable from side to side, but with great difficulty drawn downwards—bending of the arm renders the separation greater—the power of extension is nearly lost—there is a proneness to semi-flexion—swelling and ecchymosis continue for some days after the accident—rotation of the radius upon the ulna is still preserved—no crepitus.

When the fracture takes place, the triceps muscle draws up the detached piece of bone from half an inch to two inches from the ulna, the extent of the separation depending on the degree of laceration in the capsular ligament, and the ligamentous band stretching from the side of the coronoid process to the olecranon. Sir Astley has made some interesting experiments on animals, in order to elucidate the nature of this injury, and the means of reparation, for which we must refer to the volume itself.*

“The treatment of this accident is as follows, but it is to be regulated by the degree of injury. If there be much swelling and contusion, it is right to apply for two or three days evaporating lotions and leeches; and after the inflammation is reduced, a bandage should be applied; but in those cases where but little violence is done to the limb, it should be at once secured by bandage. The principle of the treatment is, to preserve the power of the limb, by making the separation of the bones as slight as possible, and consequently to shorten their ligamentous union; and secondly, to restore the natural motions of joint. If the swelling and inflammation do not prevent it, the surgeon is to place the arm in a straight position, and to press down the upper portion of the fractured olecranon, until he brings it in contact with the ulna; a piece of linen is then laid longitudinally on each side of the joint, a wetted roller is applied above the elbow, and another below it, the extremities of the linen are then to be doubled down over the rollers, and tightly tied, so as to approximate them, thus the bones are brought and

* We may, however, introduce a short extract showing the results of Sir Astley's experiments.

“Therefore, this bone, like the extremity of the os calcis when it is broken off, is detached by the action of muscles, and ligamentous union takes place from want of adaptation; but a different cause exists, where bony union is deficient in fractured bones within joints, in the neck of the thigh-bone; in the coronoid process of the ulna; and in the extremity of the external condyle of the os humeri; in which injuries, the want of union depends upon the diminished support the fractured parts receive, and that little being through the medium of blood vessels intended for the nourishment of ligament.” 488.

held together ; a splint well padded is to be applied upon the fore part of the arm, to preserve it in a straight position, and is to be confined to it by a circular bandage ; the whole is to be frequently wetted with spirits of wine and water." 490.

In a month the splint is to be removed and passive motion begun, with great caution at first. In *Compound fractures* of this bone, the edges of the skin must be brought into exact apposition—lint imbued in blood is to be applied on the wound with adhesive plaster—and union by adhesion effected if possible. In other respects, the treatment is the same as in simple fracture.

Fracture of the external Condyle of the Humerus is not uncommon among children ; but rarely occurs in the adult, or in old age. It is recognised by swelling on the external condyle, and pain on pressure, as well as on extension or flexion of the elbow joint ; "but the principal diagnostic sign is the crepitus produced by the rotatory motion of the hand and radius." In two preparations at St. Thomas's Hospital the union is by ligament.

"It is obvious, therefore," says our author, "that this principle of ligamentous union, extends to all detached portions of bone within a capsular ligament ; its vitality being supported merely by the ligament within the joint." 492.

Treatment. A roller is to be applied around the elbow, and above and below the joint—an angular splint is then to be applied, which should admit the elbow, and extend behind the upper arm, and receive the fore arm so as to support it—a roller should next be bound over the whole to keep it firmly fixed. The splint should be worn for three weeks, when passive motion is to be begun, with great gentleness at first, and to be very gradually increased.

Compound Fracture and Dislocation of the Elbow Joint. These generally happen through the internal condyles of the humerus, the fracture taking place in an oblique direction into the joint. If judiciously treated, the constitution will generally be able to support even the most severe accidents of this kind, some very interesting cases of which are detailed by our author, for which we must refer to the original.

"In all cases of this accident, the arm should be kept in the bent position, for as ankylosis in a greater or lesser degree, is sure to be the consequence, it is attended with much less inconvenience in this position than in any other. If the bones be much comminuted, and the wound large, all the detached portions of bone should be removed ; but in old people, when much injury is done, there is often not sufficient strength to support the adhesive process, and

amputation should be recommended. The edges of the wound should be kept together by placing a piece of lint dipped in blood over them, supported by adhesive plaster, and a bandage lightly applied, wetted with spirits of wine and water." 498.

We perceive, from our limits, that we must leave some portions of the work unnoticed, and we shall, therefore, pass over the sections on dislocations and fractures of the wrist, carpal and metacarpal bones, fingers, &c. in order to concentrate our attention more on certain injuries about the trunk of the body.

On dislocation of the ribs, our author says but little, apparently from a conviction that such an accident is extremely rare. A person may, he thinks, by falling on his back upon some pointed body, receive such a blow on the ribs, as may drive them from their articulations. This injury would produce the same symptoms as fracture of the costæ:—their motions would be painful, and respiration difficult. The treatment would be the same as for fractured ribs, viz. blood-letting, and the application of a circular bandage.

INJURIES OF THE SPINE.

Dislocations of the spinal column are represented by some authors as of frequent occurrence—but Sir Astley suspects that they are extremely rare, as he has never seen an instance of the kind unaccompanied by fracture of the bodies or processes of the vertebræ. He does not, however, deny the possibility of dislocation, especially of the cervical vertebræ, the articulating processes of which are placed more obliquely than those of the other vertebræ.*

* We shall here introduce some cases in illustration of this point, which were lately transmitted to us by Mr. Fielding, of Hull.

"On Partial Luxation of the Vertebræ."

"Though I presume it is almost certain, that *complete luxation* of the vertebræ cannot take place independent of fracture, yet, from some cases which have fallen under my own observation, it seems to me to be equally certain, that *partial luxation* may take place without it. I have seen four cases in which from falls, the *ligamentum nuchæ* was injured, and the last vertebra of the neck was thrown partially forward upon the uppermost dorsal. These cases came too late under my notice to be remedied—but the effect of the injury was quite apparent;—the spinous process of the *first vertebra dorsi* was much too prominent—the head, permanently bent down toward the sternum, could not be raised to the erect position. The two following cases illustrate more clearly the nature of the sort of accident I mean.

"J. M—, æt. 14, a delicate youth, gave me the following account: Yesterday evening, walking at a quick pace home, he set his foot upon some soft substance on the flags and slipped; apprehensive of falling, he made a sudden effort to recover himself, and succeeded; but, on the instant, felt vio-

The effects resulting from violence done to the spinal chord are very similar to those which are produced by injuries to the brain, viz. concussion, extravasation, fracture, fracture with depression, suppuration, and ulceration.

Concussion. The effect of this, if in a severe degree, is generally paralysis of the parts beneath; the person often recovering, in a gradual manner, the motion and sensation of the parts. A case is related, where cupping, purging, and instituting a drain from the back, restored a severe injury of this kind.

Extravasation. A very severe blow upon the vertebræ will sometimes produce extravasation upon the spinal chord, but more frequently upon the sheath in which it is contained. Of late years, since it has been the custom, in examining dead bodies, to saw off the spinous processes of the vertebræ, in cases of severe injury, blood has been, several times, found on the outer side of the spinal sheath, and, in one instance, upon the spinal marrow, just above the cauda equina. We shall give the following case entire.

lent pain in the neck, and could not bring his head into the erect position. On arriving at home, he was rubbed for supposed sprain, and went to bed. He passed a sleepless night, being obliged to lie always upon his back. Next morning he still could not raise his head, and on attempting to pursue his avocation in the office, found his head become dizzy, and that his vision was indistinct. On his return home this morning, September 10, 1822, I saw him, and found that his head was immoveably inclined to the left side, so as to be almost in contact with the shoulder, which was elevated to meet it—complained of headach and dizziness. On examining the spine, I at once discovered, that the spinous process of the last vertebra of the neck was distorted towards the right side, I felt (or supposed I felt) that the inferior oblique process was, also, too prominent on the side. Without giving any notice whatever to the patient, I placed the point of the thumb of my left hand, as accurately as I could, firmly upon the oblique process, and seizing the head with the other hand, drew it quickly, but not violently, towards the right shoulder, pressing firmly upon the vertebra with my thumb at the same time; the bone was immediately replaced, the young man jumped up suddenly from his chair, and cried out “sir, I am well,” and immediately, at my desire, moved his head and neck in every direction with little inconvenience. He was perfectly well, and returned to his employment the next day.”

“Case 2. A poor girl, æt. 14, was brought to my house, Sept. 16, 1822—her mother said that she was thrown down in the street yesterday evening, by some person running suddenly against her—she has never since been able to raise the head to the erect position. With the exception that the head inclines to the right side—the appearances are nearly the same as described in the former case—a similar method of reduction was employed, and the patient was cured at once.”—*Private Correspondence.*

"Master —, a fine youth aged twelve years, in June 1814, was swinging in a heavy wooden swing, and just commencing the moving forward, was caught by a line which had got under his chin, by which accident his head was violeptly strained, and the whole of the cervical vertebræ; as however, the line slipt immediately off, he thought no more of it. Subsequently to the accident for some months, he was not aware of any pain or inconvenience, but his school-fellows observed he was less active than usual; instead of filling up his time by play, he would be laying on the school forms, or leaning on a stile or gate, when in the fields. They were always teasing him on this account, and at last, he was persuaded himself, that he must be weaker than he used to be. From this time he continued to decline both in strength and power. About the middle of May following, he came to London. His complaints were occasional pains in the head, which were more severe and frequent about the back of his neck, (where a blister had been applied without relief,) and down his back. The muscles at the back of the head and neck were stiff, indurated, and very tender to external pressure. He felt pain in moving his head or neck in any direction; added to these symptoms, there was a great deficiency in the voluntary powers of motion, especially in the limbs.

"May 18th. Two setons were made in the neck, and he was ordered various medicines, without any being useful.

"May 29th. His complaints and the paralytic affection of his limbs, were getting much worse, added to which, he felt a most vehement hot burning pain in the small of his back. This, by the next day, was succeeded by a sense of extreme coldness in the same part. Some time after, the same pain occurred higher up in the back, and then disappeared. Pulse, and heat, natural.

"June 3d. A consultation of Dr. Baillie, Dr. Pemberton, Mr. A. Cooper, and Mr. Heaviside, was held, and the application of mercury was determined on. The pil. hydr. was taken for a few days, but as it run off by the bowels, mercurial frictions were consequently preferred. He felt his limbs getting every day weaker, but his neck was more free from pain when moved, and he was more capable of moving it by his own natural efforts.

"June 7th. His respiration became laborious, he passed a bad night, on the following day all his symptoms increased, and at five in the afternoon, he expired.

"*Examination.* The whole contents of the head were carefully examined, and found perfectly healthy; but upon sawing out the posterior parts of the cervical vertebræ, the theca vertebralis was found overflowed with blood, which was effused between the theca and the enclosing canals of bone. The dissection being further prosecuted, this effusion extended from the first vertebra of the neck, to the second vertebra of the back, both included.

"The preparation only shows a small proportion of the effused blood which had become coagulated on the theca, as much of it escaped in the act of removal, it being fluid." 548.

The particulars of the above were obtained from Mr. Heaviside, whose splendid museum is ever found open for the good of the profession.

Fracture of the Spine. These accidents, even when the bones retain their situation, produce very extraordinary symptoms, by admitting unnatural variations in the positions of the spinal column. When there is fracture with displacement, the symptoms differ according to the seat of the fracture. These injuries our author divides into two classes—1st, those which occur above the third cervical vertebra—and 2dly, where the injury is below that bone. In the first class, the accident is almost always fatal, if the displacement be to the usual extent. Death, in the second class, occurs at various periods after the injury. The circumstance of the phrenic nerve taking its origin from the 3d and 4th cervical pair, is the cause of this difference. If the lumbar vertebrae be displaced, the lower extremities are rendered completely insensible—the power of volition is completely destroyed—the sphincter ani loses its function, and the feces are passed involuntarily. The bladder is unable to contract, and the urine is retained till drawn off by the catheter. Nevertheless, the circulation goes on, though somewhat more languidly, and inflammation can be raised by blisters. It is curious, that priapism is a common phenomenon under such circumstances. In general, in fractures of the lumbar vertebrae, patients die in a month or six weeks after the injury. In fractures of the dorsal vertebrae, the symptoms are nearly similar; but the paralysis extends higher, and the abdomen becomes greatly inflated, from the diminution of nervous energy. Death sooner takes place here, than in lumbar fracture—the patient usually sinking in a fortnight or three weeks. “The period of existence is short or protracted, as the injury is near or distant from the cervical vertebrae, and as the displacement is slight or considerable, as well as the degree of injury the spinal marrow has sustained.”

“Fractures at the cervical vertebrae below the origin of the phrenic nerve, produce paralysis of the arms, as well as of the lower parts of the body; but this paralysis is seldom complete; if it occurs at the sixth or seventh vertebra, the patient has some feeling and powers of motion, but if at the fifth, little or none; sometimes one arm is much more affected than the other when the fracture is oblique, and the axillary plexus of nerves is, consequently, partially influenced. Respiration is in these cases difficult, and performed wholly by the diaphragm, the power of the intercostal muscles being destroyed by the accident. The abdomen is also tumid from flatulency, as when the dorsal vertebrae have sustained injury. The other symptoms are the same as in fractures of the vertebrae below

the cervical, as regards the lower extremities, the bladder and the sphincter ani. Death ensues in these cases in from three to seven days, as it is seated in the fifth, sixth, or seventh vertebra. I have scarcely known the subject of this injury to live beyond a week, and but rarely to die on the second day, although they sometimes do, if the fifth cervical vertebra has sustained the injury. I have already stated, that in fractures and displacements above the fourth cervical vertebra, death instantaneously follows." 556.

In the dissection of these cases, the spinous process of the displaced vertebra is depressed—the articular processes are fractured—the body of the vertebra is broken through—but, it rarely happens, that the displacement and separation occur at the intervertebral substance. The body of the vertebra is usually advanced from half an inch to an inch—between the vertebræ and the sheath of the spinal marrow, blood is extravasated; and, frequently, there is extravasation of blood on the spinal chord itself. The spinal marrow is compressed and bruised in slight displacements, and is torn through when the injury has been very extensive, the dura mater covering remaining entire. A *bulb* is formed at each end of the lacerated spinal marrow, which laceration is usually produced by the bony arch of the spinous processes. A very interesting case is related, from the practice of Mr. Harrold of Cheshunt, where the spine was broken at the lower part of the dorsal, or beginning of the lumbar, vertebræ. The principle on which Mr. Harrold proceeded, was to produce union of the bones by preserving the spine in perfect rest; to effect which, the patient was put into a fracture bed, where he had the means of evacuating the bowels without disturbance. The urine was drawn off daily by the catheter, for several weeks, after which, he was able to retain and discharge it when he pleased. At the end of six months, the following was the report of his health. His back straight, flexible, and apparently as strong as ever—retains and discharges his urine—has a stool once in three or four days—health and spirits good—but no sensation or voluntary motion in the lower extremities. He died in twelve months from the accident, owing to a sore on the tuberosity of the ischium, and disease of the bone. Sir Astley examined the body with great care, and the preparation is preserved in the museum of the College. The bodies of the first and second lumbar vertebræ had been fractured—the first having advanced, and the second having been forced backwards. The fracture had united by ossific matter, which had spread over the fore part of both vertebræ to a considerable extent, and a little had been deposited upon the dorsal vertebræ. The spinal canal had been much diminished by a portion of bone being forced into it from the first vertebra of

XI.

PUERPERAL FEVER.

1. *A Treatise on the Epidemic Puerperal Fever, as it prevailed in Edinburgh in 1821-22. To which is added an Appendix, containing the Essay of the late Dr. Gordon on the Puerperal Fever of Aberdeen in 1789-90-91-92.* By WILLIAM CAMPBELL, M.D. Fellow of the Royal College of Surgeons; one of the Medical Officers of the Royal Public Dispensary, Lecturer on Midwifery. 8vo. pp. 400. Edinburgh and London, 1822.
2. *A Treatise on the Disease termed Puerperal Fever; illustrated by numerous Cases and Dissections.* By JOHN MACKINTOSH, M.D. Octavo, pp. 323. Edinburgh and London, 1822.

THIS fatal scourge—this “*morbus lethalis*,” as Hippocrates describes it, “*ex quo paucæ effugere possunt*,” has been assuming one of its worst forms, the *epidemic*, and carrying devastation through the lower orders of the Scottish metropolis, notwithstanding the great strength of the doctorate in that quarter.

Although the pathology of the disease termed puerperal fever is pretty unanimously agreed upon on this side of the Tweed, yet there is still some little discrepancy here respecting the treatment. Beyond the Tweed all is discord in regard both to pathology and treatment. An eminent obstetrical teacher in the intellectual city has marshalled under his banners a considerable host of practitioners who declare war against the lancet, and maintain that real puerperal fever is a disease differing, in some mysterious manner, from puerperal peritonitis, with which, they aver, it is confounded by the other party. Many active and intelligent practitioners, however, guided by the light of pathology, have dared to dissent from the dictum of the medical autocrat and his proselytes, and to affirm that the fever which, in all ages, has proved so fatal to parturient females is truly inflammatory, while the seat of the inflammation is the peritoneum or sexual organs. Among this class are to be ranked the two authors before us, who have enriched the medical and pathological literature of their country by two publications of very considerable merit. As puerperal fever has not yet occupied an article in the present series of the Journal, we shall take this opportunity of entering pretty fully into

the subject, and of presenting to our readers as much as possible of the valuable matters contained in the volumes now on our table. It is to be regretted, we think, that the two gentlemen in question did not content themselves with giving a full yet explicit account of the epidemic that passed under their review, without deeming it necessary each to compose a treatise on the disease, by searching the records of the past, and adding the evidence of the dead and the living to their own observations. It is in this way that books are sometimes needlessly multiplied, and documents rendered complicated and in some degree confused.

In each work we have a historical introduction; that of Dr. Mackintosh being the more rambling and diffuse of the two, occupying 157 pages. We shall cull a slight sketch from these chapters.

Hippocrates has described puerperal fever with more distinctness than most other diseases. He has also, as we before said, characterized it as almost always fatal. Historical traces of the complaint may be found in most of the ancients, from the father of physic downwards. We shall not dwell on any of the ancient records, but come at once to a comparatively recent period.

Strotter, about the year 1716, gave the disease the term puerperal fever, and considered it an inflammation of the uterus. Dr. William Hunter asserted that puerperal fever caused the death of two-thirds of those women who died in child-bed.* Hulme, who wrote an excellent treatise on the disease, declared that it was as much to be dreaded as the plague. Denman looked upon it in nearly the same light; and Clarke observed that the most experienced practitioners were staggered at the fatality and embarrassed in the treatment of the disease. In 1770, when it prevailed in London, 19 out of 63 who were delivered in the Westminster new Lying-in-Hospital had the disease, and of these 19, thirteen died. Between the years 1789 and 1792 it prevailed, more or less, in Aberdeen, and gave occasion to the excellent little tract of Dr. Gordon, who states that out of 77 patients he lost 28—the great mortality prevailing at first, when he bled sparingly; for out of the first 27 cases, 23 died—but of the

* This great physician, says Dr. Campbell, was in the habit of informing his pupils that of 32 patients who were attacked with the disease during two months, only one recovered. "We tried," says he, "various methods. One woman we took from the beginning and bled her, and she died. To a third we gave coëct, aromat. and other cordials and stimuli, and she died. In another we gave cooling medicines, and she also died." *MS. Lectures, quoted by Dr. Campbell.*

remaining 50 cases, when he came to practice, by bleeding boldly and early, &c. In Home's clinical experiments, we were attacked with puerperal fever in the Royal Infirmary, died! Dr. "that in the Lying-in-hospital, as practice adopted has not met with mi

"Such" says Dr. Campbell, "a disease in the practice of three surgeons in a celebrated northern university incurable, the second declared the nature of the disease, but equal to afford relief; and the third is observations of his predecessors disease are related to have been have been examples of puerperal fever confounded with it." P.

To the opinions of the authors, Dr. Campbell's explanation there is no disease of more consideration—"none in accomplish less, or art more he acknowledges that the can only be a melancholia not remedy.

"I beg the reader," says that I consider myself equal to puerperal fever, if detected at commencement, admits other diseases which we pledge myself to prove to every thing that may

The opinions of the authors respecting the nature of the disease are similar—some consider it as a fever—some as a melancholia—some or the whole

* Dr. Mackintosh "that fourth-fifths cured; and in private should be restored to

Dr. Campbell and whom 79 had puerperal fever died, there were no chance. In the case refused to submit to

it as a putrid fever—others as a fever of the typhoid type, complicated with inflammation—while a fourth party look upon it as an affection *sui generis*, and peculiar to child-bed.*

Symptomatology. There is a very great uniformity not only in the symptoms but in the dissections of puerperal patients, as described by various authors; the discrepancies of opinion, therefore, respecting the nature and treatment, must have originated principally in theory and prejudice. There is good reason to believe, as Dr. Mackintosh observes, that puerperal fever is sometimes formed before the expulsion of the fœtus. We have seen more than two or three unequivocal instances of this ourselves—one of which is recorded in our quarterly series. Dr. Campbell has found that, in by far the majority of cases, “the disease appeared soon after parturition, generally within the third day.” It very seldom came on so late as the 4th, 5th, or 6th day in Dr. C.’s practice. In all, except three cases the disease was ushered in by rigours of various degree and duration—but generally so well marked as to be noticed by Dr. C.’s patients. On some occasions, however, it only amounted to a sense of chilliness or shivering. The shivering fit was soon succeeded by pain in the forehead and eye-balls, which became very distressing in Dr. Campbell’s patients. Dr. Mackintosh, however, does not seem to consider this symptom as very uniform in puerperal fever, having witnessed several fatal cases where it was entirely absent.

Reaction now succeeds this cold stage, as in other fevers, with the usual phenomena of hot skin, quick pulse, thirst, and diminished secretions. A third stage generally shows itself more or less, with a perspiration on the skin, chiefly confined to the trunk of the body. But the great pathogno-

* We shall give the following classification from the very able work of Dr. Campbell:—

“By the following authors it is considered as an inflammation of the uterus: Hippocrates, Galen, Celsus, Etius, Paulus, Avicenna, Raynalde, Felix Platerus, Sennertus, Riverius, Sylvius, Strother, Mauriceau, La Motte, Sydenham, Boerhaave, Van Swieten, Hoffman, Jussieu, Villars, Astruc, Pouteau, and Denman. By Hulme, Leake, and La Roche, as an inflammation of the omentum and intestines. Willis, Levrêt, Puzos, and Doublêt, consider the disease as of a peculiar nature. Feu, Tissot, Le Roi, and White, imagined the disease to be of a putrid nature. Petit, Selle, Kirkland, and Walsh, were of opinion that the disease was of a complicated nature. Finch, Stoll, and Doucet, considered this affection of a biliary nature. Walter, Johnston, Forster, Cruickshanks, Bichat, Pinel, Gardien, Capuron, Gordon, Armstrong, and Hey look upon it as inflammation of the peritoneum.” 21.

monic symptom in this disease is pain, especially on pressure, in some part of the abdomen. This, however, is not, in general, complained of until after the appearance of the other symptoms; at other times, there is no distinct interval of ease between the *after-pains* and those which are *fixed*—the former degenerating, as it were, into the latter. Pressure with the hand should never be neglected by the practitioner; as the pain will otherwise sometimes escape the attention of the patient in describing her feelings. At the commencement of the disease the pain is pretty constant, but in cases advancing towards a fatal termination, intervals of ease have been remarked by almost all writers, and afford fallacious hopes to the patient, the friends, and sometimes to the inexperienced practitioner. The situation of the pain has been described as very various. In our own practice we have found it more frequently in one or other iliac region stretching across to the middle of the hypogastrium. This pretty nearly coincides with the experience of Dr. Campbell, who observes—

“In all my cases, there was pain in the hypogastrium at the commencement of the disease, darting into one or both iliac regions. In a few examples of this affection, patients described the pain as having commenced in one or other of the iliac regions, and extended towards the uterus, which organ felt enlarged, and was exceedingly sensible upon pressure. In my practice, therefore, I can with confidence assert, that the pain in the beginning of this affection was chiefly confined to the hypogastric and iliac regions. Patients never complained of it in the umbilicus or epigastrium, except in one case,* until the disorder had continued for some time, and I am firmly of opinion, that those writers who describe the pain as having been chiefly seated in the epigastric region, in some instances, at the commencement of the disease, must have deceived themselves by confounding its stages. I trust I may be excused for making this assertion, because, from the number of cases I have treated, I must have witnessed the various modifications of this complaint.” 32.

Dr. Mackintosh found the pain fixed in some part of the abdomen, usually the hypogastric region, or at one or other side, where the uterine tumour was generally recognised. The pain from being sometimes slight at first, quickly became excruciating, so that the patient was unable to turn in bed, dreading the slightest touch, even of the bed-clothes.

“When,” says Dr. Campbell, “we have not succeeded in arresting the progress of this formidable disorder, the pain gra-

*“Vide Case II. of this Work, the only one where the patient complained of pain in the epigastric region from the commencement.”

dually advances from the lower part of the abdomen to the umbilicus, and from that into the epigastric region, accompanied by short intervals of ease, but afterward returning with increased violence, attacking the patient as it were by paroxysms such as I have already described. At the commencement of this disease, I generally found the abdomen more or less tumid, and this tumidity increased in proportion as the situation of the patient became more precarious, until the abdomen, in some instances, was as prominent as before delivery.* This happened in some of our first fatal cases, where the lancet had neither been so early nor so boldly employed as on subsequent occasions; but after we began to have recourse to bleeding earlier, and with greater freedom, the abdomen, although somewhat distended in every unsuccessful case, was not, however, enlarged to the same extent as the first. The uterus, in almost every instance, could be distinctly felt above the pubes, it was extremely sensible to the touch, and my impression is, that this organ increases in size during the disease; for on comparing in my own mind, the uteri of females in a healthy state, immediately after the placenta is thrown off, with those which I procured from the unfortunate victims of puerperal fever, I am quite satisfied as to the correctness of the opinion I have now advanced."† 33.

From the beginning there is generally great derangement of the vascular system. In many of Dr. Campbell's patients the pulse continued frequent from the moment of delivery, and then the fever set in on the second or third day. The last-mentioned author considers the deviation from a natural state in the pulse to be the very first symptom in order of time, and that by carefully watching this, he has detected the disease, as it were, *in embryo*, and arrested its further progress without being obliged to have recourse to any very bold measures. Dr. C. has never found the pulse under 110 after the disease had been fairly formed—more frequently it was 120 to 130—and when the fever had continued some time it was seldom under 140. In the advanced stages of cases that terminated fatally the pulse was oftener above than under 140.

"In the commencement," says Dr. C. "the pulsation is sometimes full, but more generally hard; and as the disease advances, it becomes contracted or thready; frequently intermits; and towards the close, it is so weak for a considerable period as to be scarcely perceptible." 35.

* "The swelling of the abdomen, having once begun, increases very rapidly, insomuch that the belly will become as large as it had been before delivery."

† "The uterus was lying about the brim of the pelvis, and considerably more enlarged and distended than it ought to have been.—Gordon, Case. III. See Cases XVII. XXVII. XXXIX. and XL. of this Work."

Dr. Mackintosh does not seem to regard the pulse as so good an index in this as in some other diseases. He invariably remarked, however, in the most acute cases, that the greater the ravages of inflammation in the abdomen, the sooner in the course of the disease had the pulse sunk and become feeble.

"Generally," says Dr. Mackintosh, "the pulse beats from 110 to 130 in a minute—sometimes full, at others weak and contracted. It frequently changes in the space of an hour from the former to the latter, when, unless energetic measures are quickly adopted, nothing can save the life of the patient. This circumstance, connected with another, has misled many eminent men in conducting the treatment of this disease, who, by reason of their other unavoidable engagements, cannot see the poor sufferer so often as is necessary." 40.

There is a peculiar expression of distress in the countenance of a puerperal fever patient which cannot easily be mistaken after it has once been witnessed. The eyes are destitute of animation—there is a degree of listlessness or indifference towards surrounding objects—the patient lies on her back, presenting an anxious desponding aspect. The face is occasionally flushed—the cheeks have a deep crimson appearance sometimes, while at others they are livid, and the patient seems exhausted—the eye, when the attack is severe, is frequently suffused with tears, and the pupil dilated.—(*Campbell.*)

The tongue, says Dr. Mackintosh, is generally moist and of a white colour, very slightly loaded. As the disease advances, it becomes dry and hard in the centre—in several cases he has seen it *very red*. Dr. Campbell describes the tongue as generally white and moist on the upper surface, except the raphe and margins, which, in severe cases, have a fiery red appearance—a state of tongue which he avers is highly characteristic of inflammation of the abdominal viscera.

In Dr. Mackintosh's practice the thirst was frequently urgent from the first, even where the tongue was moist. In some severe cases, however, thirst was not complained of. Dr. Campbell did not observe the thirst to be very troublesome at the beginning of the disease; but in the advanced stages of unfavourable cases it became very urgent, the patient being anxious for cold water.

The last-mentioned author observed the skin to be sometimes quite parched, and its temperature greatly increased when reaction took place—but these conditions soon gave way to partial sweats, the animal temperature not being much, upon the whole, beyond the natural standard, except

after the first rigours had passed off. Dr. Mackintosh's observations on the state of the skin are to the same effect.

Respiration is always quickened in this disease, not, we should suppose, from any thoracic affection, but from the velocity of the circulation, the distention of the abdomen, and the pain which a full inspiration causes.

"The stomach and alimentary canal," says Dr. Campbell, "are organs which suffer greatly in this complaint. From the commencement of indisposition, there is nausea, rarely vomiting. According to my experience, the derangement of the stomach keeps pace with the abdominal pain. At first, therefore, there is only a degree of nausea, occasioned by the consent of the stomach with the uterus, but as the abdominal uneasiness increases in severity, and the pain begins to extend toward the upper parts of the abdomen, the nausea is converted into an actual vomiting, first of phlegm or frothy mucus, and ultimately dark coloured matter like the grounds of coffee. For some hours before dissolution, when the pain in the abdomen is excruciating, immense quantities of coffee-coloured matter are brought up almost without an effort."* 40.

The bowels are generally constipated, and continue obstinately so, until the disease is far advanced, when diarrhoea, equally obstinate often succeeds. "In some of our fatal cases," says Dr. Campbell, "I found it almost impossible to remove the torpor, and quite so to subdue the diarrhoea."

"The evacuations differ in appearance, I have observed them to be sometimes of a dark brown colour, at other times grayish or ashy, and very generally frothy; and whatever was discharged, had always a most intolerable odour. The diarrhoea is attended with severe griping, partly produced by flatus, but chiefly by increased and inordinate peristaltic action." *Campbell. p. 41.*

Dr. Mackintosh observed the stools to be generally dark-coloured, and extremely fetid. Sometimes they were yeasty, slimy, or watery.

* "Vomiting and sickness at the stomach are very usual symptoms, &c. what is thrown up, is of a green or blackish colour; when death approaches, there is continual vomiting of a green or blackish matter.—Hulme, p. 8. What the patient vomited was black, and had a strong resemblance to the grounds of coffee.—Gordon, p. 6. The rigour is often followed by nausea and vomiting of a bilious and sometimes coffee-coloured matter; in another place, in private practice, coffee-coloured matter is brought up almost without any effort.—M.S. Professor Hamilton's Lectures. There was an almost perpetual vomiting throughout the second stage, though only a slight nausea occurred at the beginning, and very little vomiting in the rest of the first stage. Indeed, vomiting was always more urgent in the last than in the first stage of the disease, and the matter thrown up very much resembled coffee grounds, and was offensive to the smell.—Armstrong, p. 7."

The disease generally attacks before the afflux of milk to the breasts; and where this afflux has taken place, the mammæ become flaccid, and the lacteal, like all the other secretions, is diminished or entirely suppressed on the supervention of the fever. Dr. Mackintosh properly advises the early application of the child to the breast after parturition, in order to establish a determination to the mammary vessels, which may have some influence in checking irregular determinations to other organs.

The state of the lochial discharge has given rise to great controversies as to the reality or spuriousness of puerperal fever.

"Some say," observes Dr. Campbell, "that there is more or less of a suppression of the lochia in every example of the disease, others again, that it is altogether suppressed in some cases; while the distinguished Professor Hamilton declares that it does not suffer any change, and that the disease cannot be puerperal fever where the uterine discharge is suppressed.* My experience corresponds in some measure with this eminent individual, for in all my cases, except one, the uterine discharge was always present to some extent, and I have since been of opinion, that I had in this instance suffered myself to be deceived by the attendants, who often say that the lochia are suppressed when they really are not. Although this discharge continued to flow, to use the words of a celebrated author, there was always 'more or less of a suppression of it,' and this was particularly conspicuous immediately after the accession of rigours, a change naturally to be expected, as all the secretions are diminished during febrile excitement, not only in the puerperal state, but on every other occasion. I would not, however, wish it to be understood, that I should be so illiberal towards my brethren as to insinuate, that they have allowed themselves to be deceived in all their cases; for I should suppose that there are deviations to be remarked in the lochia as well as in every other symptom of the disease. It is an assertion extravagantly ridiculous for any person to make use of, that such judicious men as Denman, Leake, Gordon, Armstrong, and Hey, have confounded the puerperal fever with other affections, because they have stated the condition of the lochial discharge to be different from that described by one or two others." 44.

It certainly appears rather inconsistent when we find Dr. Hamilton recommending Hulme's cases to the world as being the most genuine and best marked specimens of real puerperal fever, while that very author expressly states that the

* "The lochial discharge continues, and in no case have I ever known it affected either in private or in public practice; and I am positive that when it was suppressed, the disease was not puerperal fever.—M.S. Lectures of Professor Hamilton."

lochia are more or less diminished in quantity in the commencement of the disease.

Dr. Mackintosh found the lochia to flow, as in health, in a few cases; and in but a few cases were they entirely suppressed. Dr. Mackintosh here quotes passages from all the best writers on the disease, from which it appears that no positive conclusion can be drawn from the state of the lochial discharge in puerperal fever. All the authors, however, Professor Hamilton excepted, agree in describing the lochial discharge as more or less affected in the disease under consideration.

The urinary, like the other secretions, was generally affected, but not to any great extent in Dr. Campbell's practice. From the time the disease came to be well marked, the urine was diminished in quantity, and the patient complained more or less of pain in voiding it. Dr. Mackintosh makes nearly the same remarks, and the appearance of the urine was not very particular.

The blood generally exhibited a thick, firm, buffy coat, in Dr. Campbell's cases. In the first blood drawn, the coagulum was large and tenacious; but in every succeeding detraction, it became smaller and smaller, still continuing firm, the quantity of serum increasing in proportion as the crassamentum diminished. "Mental aberration," says Dr. C. "succeeded the free use of the lancet in four cases, but all of them ultimately recovered."

"One became deranged after losing forty-five ounces of blood at one bleeding, which subdued the disease, but she had been subject to puerperal mania after her former labours, and remained in a state of alienation on this occasion for nearly three months; a second, after losing eighty-six ounces of blood at three different bleedings, continued maniacal for fourteen days; another patient, after having been bled to sixty-six ounces, continued in a state of aberration for upwards of two months; and the fourth was delirious only for twelve hours, after having lost 128 ounces of blood." 46.

There was delirium in four cases only, three of which died. In two of these the delirium might be ascribed to improper treatment.

The period at which the disease proved fatal was very irregular. In neglected or improperly treated cases, it was astonishing how rapidly the disease ran through its different stages. Dr. Campbell heard of instances where the patients never rallied after the rigour, and sunk in 24 hours from the commencement of the attack. One of Dr. C.'s patients died in eighteen hours from the beginning of the rigour. This case affords a convincing proof of the reality of what has been termed and described as *congestive fever*, by Drs. Jackson,

Armstrong, and others. We shall, therefore, extract the case and dissection.

"The patient alluded to, J. Gulry, was delivered of twins at five in the morning of the 21st of December, 1822, by one of my pupils, Mr. Patello. At ten o'clock she was seized with a violent rigour, but we heard nothing of this circumstance, until the gentleman, by whom she had been attended, during her labour, called on her the following day, and informed me soon after that he found her insensible and labouring under stertorous breathing, with scarcely any pulsation at the wrist. I visited her shortly after, she was then in *articulo mortis*, and died at four o'clock. The account I received from the attendants was, that 'she trembled from head to foot, that she never recovered her natural heat afterward, that she refused every sort of nourishment, that she became delirious early in the morning, and that her breathing had become more or less oppressed from an early period after the time she shivered.' It may not be improper to state, that this woman was not married, and that she had two children formerly in a similar way. On the present occasion, her parents were so enraged at her conduct, that when her labour came on, they turned her out of doors about three in the morning, during excessively piercing cold weather, and she was delivered in the house of another poor woman, without a single stitch except her body clothes to shelter her from the inclemency of the season. The body was examined by Mr. Lizars, in presence of Dr. Duncan, junior, Professor of *Materia Medica*, Dr. Mackintosh, and Dr. Orr. There was no effusion of coagulable lymph or serum into the abdominal cavity; nor was there any adhesion of the intestines or other viscera; and the inferior margin of the omentum, which, in almost all the other cases was charged with purulent matter, in this, however, appeared sound. The only thing remarkable was great congestion of the intestinal and uterine veins. The spermatic veins especially, were so distended with blood, that they could be compared to nothing else than the ascending vena cava; and the veins ramified on the arches of the colon, were exceedingly turgid. The uterus was remarkably large, but contained nothing except portions of the decidua. This was the only instance I met with, in which reaction did not take place after rigours, but I had occasion to know that several cases of a similar character happened in the practice of other gentlemen in this city, during the late epidemic season. It may be doubted whether we are justified in considering the affection, of which I have now described a case, as a variety of the Puerperal Fever, or whether we should look upon it as a distinct disease." 49.

We look upon the above case, and all similar ones, to be nothing more than fatal instances of fever anterior to, or with imperfect reaction, of which Dr. Jackson first described numerous examples, and afterward Dr. Armstrong in his valuable writings. Dr. Jackson's works have been so much overlooked by the profession, that we are here tempted to intro-

duce two extracts from his writings—one, to show the general features of congestive fever, and the other to exhibit the usual appearances found after death.

(No. 1.) Phenomena of congestive fever.

"The symptoms," says Dr. Jackson, "commence with more or less of cold, the heat which succeeds is seldom high as judged by the hand, or as measured by the thermometer applied to the surface; the sensations of internal heat and internal burning are often insufferable. The skin is thick and torpid; the countenance is dark and grim, sometimes agitated, sometimes torpid and inanimate—bloated without expression—livid, and of a peculiar gloss. The eye is usually clear, white, vacant, with an idiotic drunken stare; sometimes it is confused, agitated, and protruded. A sense of anguish at stomach, scarcely to be expressed in words, sometimes accompanied with nausea—sometimes without nausea, often distresses the patient in an extreme degree. Delirium occurs sometimes, and, when it does occur, it is furious, but the occurrence is not common. The pulse is sometimes irregular and irritated, impressing the idea that it is restrained from expansion by some latent cause of resistance: sometimes it is slow, sluggish, overwhelmed, as it were, by a load of oppression. The respiration is more or less disturbed; deep sighing is usual; gasping for breath, or an unceasing attempt to fill the lungs without the power to do it, is common; when present, it characterizes an aggravated form of disease. The tongue is often swollen, and, as such, incapable of distinct utterance; sometimes it is smooth, red, or rather livid; sometimes white and foul, the surface strewed with mealy patches; sometimes it is foul and leaden-coloured.

"The above appearances are conspicuous under the tumult of invasion; and, under this tumult, convulsion sometimes supervenes, and the patient dies apoplectic before the close of the first day. But in general, the action assumes an ostensible febrile form; and, under that form, advances, with more or less regularity, until the third, and sometimes until the fifth day, when it usually terminates fatally."*

(No. 2.) Appearances on dissection.

"The following appearances were more or less observable in all, or in almost all those who died of this form of disease. The veins and sinuses within the head were turgid—distended with black blood; the choroid plexus appeared sometimes as an unorganized clot of blood; the lungs were frequently black, resembling a sponge filled with blood—sometimes throughout, sometimes partially,—the substance was sometimes firm and dense, not unlike the substance of spleen. The veins of the omentum, and of the external coat of the intestinal canal were distended throughout—the blood of a dark colour. The small intestines, as viewed exteriorly, often appeared black as if gangrened; the interior was

* Dr. Jackson on Febrile Diseases, Vol. I. (2d Edition,) p. 91-2.
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filled with grumous blood—the coat of the intestine itself not diseased. The liver was often enlarged in size, distended with black blood, its substance rotten, its exterior coat sometimes ruptured by distention; the contents of the gall-bladder were often of a pale colour, and of a thin consistence; the spleen was generally large—the coats frequently ruptured—the interior a grumous mass.” 89.

We have brought forward the above extracts in order to induce our brethren to consult more generally, the invaluable writings of the venerable and experienced Jackson. In them they will find an inexhaustible fund of accurate observations on febrile diseases, which the obscurity of the language in the earlier editions of his works prevented from being generally appreciated as they deserve.

Dr. Mackintosh occupies a considerable portion of his volume in tracing an analogy between puerperal fever and some forms of congestive disease under other circumstances. Thus, yellow fever, cholera, dysentery, &c. &c. are brought forward to illustrate his point, and, we think, he has not only stretched his analogies too far, but needlessly and improperly entered into the pathology, causes, treatment, &c. of diseases that had no relation at all, or extremely little, to the subject of puerperal fever. Thus, to give an instance of these strange and unnatural digressions, Dr. Mackintosh enters once more into the controversy with Dr. Chisholm; and the Hankey, the Bulam fever, and all the threadbare discussions about the contagion of yellow fever in the West Indies, are gone over again in a work on the Epidemic Puerperal Fever of Edinburgh. All this portion of the work we must pass over, and all this portion Dr. M. will do well to leave out in another edition, should the work arrive at that honour.

It is proper to state here, however, that Dr. Mackintosh insists upon “two great and striking varieties of this disease, which, by the symptoms of one running into those of the other, have tended more to blind the judgment of professional men, and lead them into false conclusions, than any other circumstance whatever.” The first variety is the congestive form of the disease, which, however, is very rare. We shall give Dr. Mackintosh’s description of it in his own words.

“In the first variety, there is a manifest oppression of the vital powers, commencing generally with a rigour, more or less severe—coldness of the surface, particularly of the extremities—paleness of the countenance, expression of anxiety in the features—a soft compressible pulse; which in some cases has a full beat; at others it is contracted—respiration sometimes laborious, at others amounting only to a slight difficulty. Pain in some part of the abdomen is complained of, for the most part over its whole surface, in some cases confined to the epigastric, or hypochondriac

regions. In this state of the system it is sub-acute; increased, however, upon strong pressure—or, excessively acute, the patient dreading the slightest touch. The patient is quite sensible, although she speaks little; aware of her awful condition—she desponds. In some cases, diarrhoea precedes, or soon follows, these symptoms; and she dies, sometimes in six, sometimes in twenty-four hours; in spite of the exhibition of brandy, which it is so much the custom to rely on. This, it must be confessed, is a rare case; it does now and then, however, occur, and after it has existed an hour or two, no treatment will prove effectual. Prevention, here, is the grand point, and a good attentive practitioner can almost always see, where the disease is to be expected.” 31.

These congestive forms, as we said before, of this and other diseases, are merely a more than usually depressed state of the sensorial power, and a languid state of the heart; in consequence of which, the reaction of the system which in all cases, is a salutary effort of Nature, cannot take place, and the constitution sinks under the attempt. We consider this variety as entirely owing to a greater intensity of the cause of the fever, whatever that may be, as contagion, miasmata, malaria, &c. or a greater than usual debility or susceptibility of the constitution.

PATHOLOGY OF PUERPERAL FEVER.

Considerable diversity of opinion has prevailed respecting the nature, or in other words, the pathology of puerperal fever. The ancients, without the aid of dissection, came to the conclusion that it was inflammatory—others, since their time, thought it to be of a peculiar nature, and proper only to women in child-bed. A third order of physicians supposed it to be of a putrid nature—a fourth, bilious—and, lastly, another class consider it as the common infectious fever, complicated with a more or less extensive inflammation of the peritoneum. Dr. Campbell, in proceeding to analyze these opinions, grounds his arguments entirely on the symptoms, the dissections, and the effects of treatment, laying theory aside altogether. That the ancient opinion was the most correct one, will probably appear in the sequel.

“With respect to the first opinion,” says Dr. Campbell, “every symptom and feeling of a patient, from the moment the disease can be said to be ushered in, clearly show that it is of a highly inflammatory character. If rigours, quick, firm, corded pulse, acute fixed pain, tumefaction, and increased heat, be considered as constituting the leading symptoms of the definition of inflammation, we cannot surely deny that the disease under consideration is of this nature, for almost all of these symptoms are present in a prominent degree throughout all its stages. When we are afforded opportunities of examining the bodies of those who fall victims to the disease,

we then have, in consequence of the great devastation of many, or on some occasions, of all the parts contained in the abdominal cavity, the most undeniable proofs of extensive inflammation. In some cases the vascularity of all the parts is increased, although not to such extent as to account for the fatal event. In other instances, the evidences of increased vascularity are only remarkable at particular points, the change of structure being confined to the uterus, or to its appendages only, or to the intestines, omentum, and peritoneum. But even in those cases, where the appearances of excitement were by no means considerable in some parts, other organs, however, such as the omentum, intestines, and ovaria, in the same case, were in a state of suppuration, or approaching to gangrene. Independent of the very obvious marks of excitement which I have now particularized, we meet with others not less characteristic of the inflammatory action, viz. the effusion of coagulable lymph and serum.

"It will be seen by the dissections which I have detailed, that the effusion of serum and coagulable lymph was very considerable, exceeding on some occasions several pounds in quantity; appearances which have been noticed by every person who had opportunities of examining the bodies of those who fell victims to this affection, and particularly by the late very accurate Dr. John Clarke, who, in consequence of the great quantity of matter thrown out, was disposed to attribute the effusion, not to active inflammation, but to a peculiar action of the peritoneal vessels, quite distinct from this morbid state. Effusion, however, is now universally looked upon as one of the terminations of inflammation, and whoever will take a correct view of matters, in reference to the previous state of the subject before effusion can be said to have taken place, such as the repeated accession of rigours, the acceleration of the pulse, the acute fixed pain, and ultimately the progressive enlargement of the abdomen, must be convinced, laying aside all other proofs, that nothing but violent excitement could produce so great an accumulation of serous fluid. Will any one of the present day attempt to deny that effusions into the brain and thorax, are not the effects of previous inflammation, and in either of these affections are symptoms of excitement more distinctly marked, than in the disease under consideration? And as to the preternatural membrane, or crust which covers the abdominal viscera, do we not often observe similar appearances on the surface of the lungs, of the heart, and of the liver, in cases where those organs have been the seat of inflammation?" 174.

In some instances, Dr. Campbell observes, the excitement proceeded so far that the abdominal viscera had contracted adhesions with one another by abundance of coagulable lymph deposited between their convolutions and into their different interstices. To the extensive effusions of serum and coagulable lymph may be ascribed the little apparent increase of vascularity, and the want of turgescence of vessels; "for

in cases where those extravasations were limited, the characters of inflammation, such as engorgement of the vessels and change of structure from actual suppuration, were more distinctly marked."—*Campbell.*

"In every one of our dissections," says Dr. Campbell, "the evidences of inflammation were so decisive, that I have no hesitation in declaring, were I to invite a mere tyro in physic, after having heard lectures on the ravages committed by inflammation, to witness the examination of one of these bodies, and to ask him what did such a patient die of, he would at once reply, inflammation." 175.

Dr. Mackintosh, after reviewing the various pathological doctrines which have been broached by former writers, states that the pathology which he himself has been led to adopt, is derived from an analysis of the symptoms, and the undisputed fact that puerperal fever is less dangerous the later the attack after delivery—and that it is still milder after abortion. His opinions are also strengthened by the analogies which the fever bears to other inflammatory and congestive diseases.

"I agree," says Dr. Mackintosh, "with the sentiment so well expressed by Gardien, that, in the consideration of this disease, it is impossible to separate its history from the condition of the female after parturition. That it is not a disease *sui generis* , I think, is sufficiently proved by the facts hitherto detailed; and it appears equally evident from these, that the disease is nothing more than an inflammatory affection of the peritoneum lining the cavity of the abdomen, and which covers its contents; commencing, it is most probable, in some portion of that membrane which covers the uterus, tubes, and ovaria, accompanied with a greater or less degree of congestion of the blood, which is sometimes so great, as to kill the patient before reaction takes place. This tendency to congestion is greatly increased by the state of a woman immediately, or soon after delivery. It is simply this state that renders, and, that ever will render this disease so formidable, in all quarters of the globe—in Greece, as well as in other parts of the Continent—in Britain, as well as in its foreign possessions—in South and North America. In many of these situations, except the first and last, I have watched the progress of, and examined the changes of structure produced by, this disease, in the bodies of those who fell victims to it. I can aver, that I have seen above one hundred cases, and about thirty dissections; and I am enabled to state, that although the symptoms do vary in degree and duration, the appearances on dissection are almost always perfectly similar. I do not, by this, mean to impress a belief on the mind of the reader, that this or that part of the peritoneum is more diseased than another. All that I wish to convey, is, that the appearances do not vary more than in peritoneal inflammation, in men, or in women in the non-puerperal state. It is, therefore, this peculiar state of a woman's system, after child-birth, that is now to be investigated." 169.

Dr. Mackintosh makes many judicious remarks, physiological and pathological, on the puerperal state and the probability of its predisposing to, and aggravating peritoneal inflammation. He agrees not in the fashionable pathology which attributes every disease to certain changes or commotions in the vascular system, to the exclusion of participation in the nervous system. Our readers are aware how strenuously we have, at all times, opposed this confined view of febrile pathology ; and not only opposed it, but endeavoured to show that in almost all fevers the nervous system was the first to receive the shock, and its functions the first in order of derangement. We extract the following passage from Dr. Mackintosh as containing much sound reasoning.

"In considering the state of the vascular system in a recently delivered woman, we must have recourse to the changes which take place with conception, and which continue to go on during gravidity till the full time, before we can understand what takes place afterward. I consider it as an established fact, that, from the moment, or soon after conception takes place, an increased action of the vascular system comes on, and that a necessary determination of blood to the uterine region commences. Menstruation is suspended, which increases the general tendency to plethora. In the early months, we find nature struggling to counteract, to a certain extent, this new determination, and this recently-acquired plethora, by a constant nausea and sickness, which not only diverts the blood to the surface of the body, but also prevents an increase in the quantity of that fluid, little food being allowed to remain on the stomach. The physician often finds it necessary to give his assistance to one side or other ; which, unless he does timeously and judiciously, the balance of the circulation will be entirely upset, and the only way by which nature can relieve herself, is either by diarrhœa, or a spontaneous discharge of blood from some part of the body, or by miscarriage. This general plethora exists, more or less, up to the full time, and the determination to the uterine region goes on gradually increasing to the same period : partly to supply the means of growth to the uterus and its appendages, and partly, to support the change, which it is believed takes place on the blood of the fœtus in the placenta. In consequence of this, the quantity of blood transmitted through the abdominal aorta, becomes very great : the blood-vessels of the viscera receive more than the usual quantity : but this is prevented to a considerable degree, by the equal pressure afforded to them, as the circulation increases, by the increasing size of the womb itself.

"The uterus is supplied with blood by the spermatics and hypogastrics, which greatly increase in size.* The veins accompanying

* "The arteries, both hypogastrics and spermatics, are very much enlarged." *Anatom. Description of the Human Gravid Uterus*, by William Hunter, M.D. p. 16."

the course of the arteries, have the same name, and are still more enlarged in size than the arteries; their immense size has induced many anatomists to call them sinuses. These, as well as the veins in the cavity of the abdomen, are without valves; they are more distended in the gravid, than in the ordinary state of the system; and, I apprehend, that the blood will find increasing difficulty in returning to the heart from the uterine region. This will explain many of the anomalous symptoms which occur during gestation, and the relief generally afforded by blood-letting; and will bear me out in the assertion, that the calibre of these vessels is increased, to perhaps double their natural size.

“There is also a peculiar change in the nervous system during utero-gestation, which shows itself so early as the first weeks of pregnancy, and goes on augmenting till the period of its termination. This has been very aptly styled, the increased susceptibility of impression of the nervous system. This morbid change, if I may say so, chiefly displays itself in the temper; and, by slighter causes, producing more violent irritation, both of mind and body, than in the unimpregnated state.” 173.

During labour a febrile state, to a greater or less extent, is produced—and afterward blood is lost, varying from twelve to forty ounces, or more, which, in all probability, is a salutary evacuation when within moderate bounds. The abdominal and uterine plethora is now also relieved by a tide of the circulation and excitement to the mammary vessels. During all these curious changes and revolutions the nervous system is in a state of great irritability or susceptibility. The least noise causes great agitation, and disturbance in the circulation, and it is but too well known that frights, despondency, and other mental impressions have, in all ages, produced the most fatal consequences in the puerperal state.

“And when we consider the plethoric state of the system of a woman with child—the determination of blood so long continued to the abdominal region, which is suddenly checked after the birth of the child—the susceptibility of the nervous system to receive external impressions—and the sudden removal of the pressure which the large uterus produced on all the parts within the abdomen,—we shall, at a single glance, perceive how causes, such as the application of cold, too early sitting up, irregularity in diet, imprudent use of stimuli, or anxiety, grief, and horror, or even very slight affections of the mind, in an irritable system, in which the balance of the circulation is not yet confirmed, may upset it altogether, by causing an irregular determination of blood, which will very naturally be directed to the vessels most ready to receive it.” 179.*

We are ready to grant that these and other explanations are applicable enough to puerperal fever in its sporadic form ; but Dr. Mackintosh makes no attempt to account for the epidemic form of the disease, and consequently leaves out the main point of the etiology. Dr. M. no doubt saw that the moral and physical circumstances, above alluded to, could not possibly differ so much in one year from another, around the women of Edinburgh, as to make all the difference between health and wide wasting disease. He has therefore passed over the subject of epidemic influence, leaving it unexplained—and what is worse, leaving unexplained the modifying influence which this epidemic constitution operates on the nature and treatment of the disease. This is the great failing of ardent young practitioners. They cannot bear to think that diseases vary with the season and with the epidemic character—a truth which the more experienced and more sober part of the profession are convinced of from daily and yearly observation. On this account, and in this respect, Dr. Mackintosh's etiology, and even his practice, is defective ; for we are old-fashioned enough to believe, nay, to know, that there may be *inflammations* which, under certain epidemic constitutions, can be more readily cured by bark than by the lancet. We must not, therefore, lay down a sweeping pathology and therapeia that will admit of no modification on account of times, places, and circumstances. In throwing in this caveat we do not mean to say that the late epidemic was one in which bleeding was unnecessary—far from it. But we mean to say, that every practitioner, at the commencement of an epidemic of any kind, should act with caution, like Sydenham of old, till he ascertains the character of the disease he has to treat—and not go to it with a firm persuasion that it can have but one character, and consequently but one mode of treatment. Indeed, the various, and sometimes diametrically opposite remedial agents which every old practitioner must, in his time, have seen prescribed for, and curing fever, cannot but leave a conviction on the mind that diseases assume an almost infinitely varied character, from time to time, and require corresponding modifications of treatment—and that even when their pathology appears uniform.

Dr. Mackintosh, in his chapter on pathology, gives a sketch of the opinions of preceding writers on this subject, and then relates several cases from the practice of himself and others, with the appearances on dissection, tending to prove the inflammatory nature of the disease, and the necessity of vigorous depletion in its treatment. For these cases we must refer to the work itself.

Seat of the Disease. Dr. Campbell states, that whoever will attempt to fix the seat of inflammation in puerperal fever, by dissection, will find himself disappointed—for, if we suppose the part most diseased is that first affected (which is a natural conclusion) we shall have the primary seat of this complaint in a different part in every three or four cases. In one case the uterus, in a second its appendages, in a third the intestines, in a fourth the peritoneum, and in a fifth the omentum will bear the principal marks of the disease.

We agree with this able author that it is more a matter of curiosity than practical utility to ascertain the primary, or even the principal seat of the phlogosis. If we are convinced that inflammation actually exists, the same means will cure it (if it can be cured) whether it be seated in one or other of the above-mentioned parts. Were Dr. Campbell to give an opinion on this point, grounded on the symptoms and dissections, he would say that the inflammation *generally* begins in the uterus. The very circumstance of pain in the hypogastric region or ilia being among the first symptoms, together with the diminution of the lochial discharge, appear to him to be sufficient proofs in confirmation of the above opinion. Whether the inflammation commences in the substance or in the peritoneal covering of the uterus it is difficult to say. Dr. C. thinks it sometimes begins in the one and sometimes in the other. In every case where our author was early called in, pain was complained of in the region of the uterus, and this organ enlarged could be distinctly felt through the abdominal parietes, hard, and exquisitely tender on pressure. In many cases the pains seemed to radiate from the uterus to other points; and it was not until after the disease had existed for some time, that the uneasy sensation became general and stationary all over the abdomen. Dissection generally corroborated this idea—not in all cases, from the vascularity or change of structure in the uterus, but from its generally enlarged size.

Dr. Campbell makes some reflections on the name which should be applied to the disease under consideration, in order that no false impression might be conveyed with the term. He decidedly objects to “puerperal fever,” to “low child-bed fever,” and some other appellations calculated to mislead the young practitioner. “Peritonitis,” he thinks, is preferable to all other terms hitherto applied.

Predisposing Causes. These have been touched upon already in the extracts which we have given from Dr. Mackintosh's work. Of the increase of the abdominal and uterine nerves, from pregnancy, Dr. Campbell had numerous op-

portunities of proving by dissection. Of the increased quantum of albumen in the blood of the pregnant female, there can be no reasonable doubt entertained. Dr. C.'s other observations on the predisposing causes, are very nearly the same as those of Dr. Mackintosh, to which we have already paid attention. We may state, however, that Dr. Campbell only observed two cases of puerperal fever where uterine hæmorrhage had taken place.

Exciting Causes. These, no doubt, are numerous and diversified, as in the case of any other inflammatory affection.

"Among the exciting causes," says Dr. Campbell, "which have been usually remarked as possessing influence in producing the disease in question, may be mentioned, applying the binder round the abdomen with unusual firmness after parturition, the sudden and forcible detachment of the placental mass, and retention of the secundines, injuries before and during the process of parturition by brutal violence, or the use of instruments, and consequently severe labour; mental emotions, exposure to cold, premature use of stimuli, whether food, or drink, impure diet, lactiform metastasis, infection, and a noxious constitution of the atmosphere. Of the three latter, it will be necessary to take particular notice, as they have been supposed by different persons to have a considerable share in producing Puerperal Fever; but with regard to the others, it will suffice merely to offer some general remarks, as their power in exciting inflammation is universally acknowledged, and because I think I shall be able to adduce satisfactory proofs that some of them have had much influence in producing the present epidemic, or aggravating its symptoms after it did appear." 202.

The binder, if carried to an ultra extent so as painfully to compress the abdominal viscera, might be injurious; but, moderately and properly applied, it cannot be otherwise than very useful. In respect to the placenta, although no violence is justifiable, our author agrees with Dr. Hamilton, that it ought never to be allowed to remain more than an hour. It appears from our author's experience, that women who had been delivered for the first time, and whose labours were *generally* more severe than on subsequent occasions, suffered considerably more from puerperal fever, than those who had several children, and who must have experienced easier labours. The first patient, (Mrs. Hepburn) Dr. Campbell had every reason to believe, became affected with the fever in consequence of the severity of her sufferings during parturition.

On mental emotions we have already remarked. Puerperal patients are unquestionably more susceptible of impressions from cold than other patients. Many instances of this occurred in Dr. Campbell's practice. Some instances, also,

were remarked, where the inordinate use of stimuli brought on the disease.

On the subject of infection our author feels great reluctance in expressing his sentiments, as the conclusions he has drawn are in direct opposition to the opinions of men of the first rank and eminence in their profession. From what fell under his own observation, Dr. Campbell does not feel himself authorized to concur with the contagionists. Only about one in ten of his patients were affected with the disease ;—and, as neither he nor his assistants used any particular precautions to prevent the dissemination of contagion, if such existed, he thinks this fact goes strongly against contagion. The following communication, which Dr. Campbell received from Mr. Syme, a practitioner of eminence in Stirlingshire, appears to us to be somewhat indicative of the occasional infection of puerperal fever.

“ When this chapter was printing, I received from Mr. James Syme, a practitioner of eminence at Alva, Stirlingshire, the particulars of four cases of Puerperal Fever, drawn out with great accuracy. Two of which occurred in his own practice, the other two in that of Mr. Galloway, a surgeon of respectability in the same place. The symptoms were precisely similar to those observed in my patients. One died on the second, two on the third, and one on the fifth day from the commencement of rigours. Two were delirious for some time before death ; and in the other two, vibices were observable on various parts of the body, as remarked in Case V. of this work. The lochia were greatly diminished in the progress of the disease, but not suppressed. The most remarkable circumstance, however, attending one of these cases is, that the child, a male, died in a few days after its mother, and that a woman who waited upon them both, and afterward assisted in cleaning the bed-clothes, was seized at the end of three days with shiverings and other symptoms, similar to those observed in the case of the female she attended, and she likewise fell a victim to them in forty-eight hours. Another woman who had been hired about a week after the decease of this last, to assist in washing blankets, was also attacked with symptoms resembling Puerperal Fever, and in a few days shared the same fate with the other, although neither were pregnant nor nursing at the time. A similar thing happened in the Lying-in Ward of the Royal Infirmary here, during the time of Professor Young, and likewise at the Hotel Dieu of Paris. At the latter place, however, they were chiefly men who were affected. It may be thought by those who suppose this disorder to be infectious, that what I have just related is a strong corroboration of this doctrine ; but in the present day, it is not necessary to adduce any proofs to show that inflammatory diseases often prevail epidemically, without being contagious.” 227.

Without having seen direct and unequivocal evidence of the contagion of puerperal fever ourselves, we confess, that

we have little doubt that it occasionally puts on that character. We have seen erysipelas over and over again decidedly contagious; and, if so, why should not puerperal peritonitis be sometimes contagious? We believe that it is only under peculiar circumstances, the nature of which we are yet ignorant of, that either of the diseases just mentioned take on this dangerous character; but this is also the case in several other diseases.

Dr. Campbell very properly attributes the spread of puerperal fever, on such occasions as that lately witnessed in Edinburgh, to some epidemic influence, the nature of which is yet a secret.

"The ravages of this epidemic," says Dr. Campbell, "were not confined to the human species alone, but extended their influence even to the lower animals. Bitches, in several families in town, soon after having brought forth their young, refused to suckle them, and died in two or three days after. A similar circumstance occurred in London, during the epidemic described by Dr. John Clarke. This, however, is an occurrence which may happen independent of any epidemical constitution of the air. In the winter of 1820, when the menagerie of Mr. Wombwell was in this city, several of his collection died a few days after having given birth to their young. A lioness in particular, on the second day after bearing two cubs, shivered, was taken very ill afterward, and not only refused to suckle them, but actually pushed them away from her, and she died on the third day after having been seized, apparently in great suffering. There was no epidemic of any description in Edinburgh during that winter, and the animal's disease was ascribed by the keeper to her having caught cold. The uterus and broad ligaments, which I have now in my possession, were very much inflamed; and the peritonæum was affected in a similar manner. In various parts of the country, more especially in Fifeshire, the mortality among cows after calving was remarkably great about the same period that Puerperal Fever was prevalent; for several farmers lost five or six cows, which was considered as a very unusual proportion. These are strong coincidences, and, in my opinion, go a great way to prove that the disease was produced by some peculiarity in the constitution of the air, and not by infection, or any other cause operating solely." 229.

Diagnosis. We entirely coincide with Dr. Campbell in condemning the pragmatistical dietum of Professor Hamilton, who insists that the lochial discharge is always uninterrupted in real puerperal fever. We should not like to say any thing harsh upon this occasion; but we cannot suppose, that a man of Dr. Hamilton's penetration, on other occasions, can be absolutely convinced in his own mind, of what almost universal experience gives the negative to. We can only account for this obstinacy by the well-known *tenax propositi*, which, in some individuals, is not to be eradicated from the mind by

any possible means. We would beg leave to remind the Professor, that his pupils, when they go abroad in the world, have not his reputation to screen them when they commit themselves at the bed-side of sickness; and we can assure him that it is not many months since the character of one of them, and probably his prospects through life, were left at our mercy by a blunder, involving the life of a fellow-creature, and based on this destructive principle of diagnosis, inculcated by Dr. Hamilton. The lesson taught this gentleman by the astounding appearances on dissection, will not easily be obliterated from his memory, and we warn the rising generation against the fatal delusion into which they are led, by mortified pride and unpardonable pertinacity.* It is most true, as Dr. Campbell properly remarks, that the symptoms of the disease teach us, and the dissections confirm, that distinctions into low child-bed fevers, peritonitis, hysteritis, and enteritis, are of no practical utility, because all these parts are so intimately connected, that wherever the inflammation begins, the excitement cannot long be confined to any one part, but must spread with rapidity over the whole.

"To the younger part of the profession," says Dr. Campbell, "I would offer a diagnosis for this disease, which for simplicity they cannot mistake, and for accuracy will stand the test of experience, by which alone we should be guided. When a practitioner, therefore, meets with a puerperal patient labouring under *acute fixed pain in the lower part of the abdomen, aggravated on pressure, or a general soreness of the abdomen rendered more acute by pressure, accompanied with frequent pulse, hurried inspiration, and much uneasiness on turning to either side in bed, he may rest assured that such patient is affected with Puerperal Fever*; and unless she is considered in this light, the conduct of the practitioner should undoubtedly be brought under the cognizance of legal investigation for professional ignorance, since the symptoms which I have now enumerated must always be present in some degree." 237.

No condition of the circulation *solely*, ought to be relied on as a diagnostic, for the state of the pulse is as variable as any other individual symptom. Neither can the state of the stools be much depended on. They are sometimes, though not very often, frothy and yeasty—more frequently dark and offensive.

The only distinctions which Dr. Campbell insists upon in this disease, are sporadic and epidemic, in which he would

* "Why he should maintain that they (the cases detailed in the late epidemic) are not cases of puerperal fever, I cannot understand, unless, perhaps, with a view to account for his own acknowledged want of success in this disease."—*Campbell*, p. 232.

include inflammation of the abdominal lining, uterus, and intestines.

"But I repeat, that any distinction of this nature ought not to influence the conduct of the practitioner, for the treatment of both must be the same; with this difference, however, that in the epidemic, it may be found necessary to carry our remedies to a greater extent." 241.

Here Dr. Campbell details a case which happened in Professor Hamilton's own practice, and was pronounced to be puerperal fever, where bleeding was objected to, where the patient died, and where dissection showed the peritoneum injected, the mesenteric arteries exceedingly turgid, portions of the ileum inflamed—the mouth and neck of the vagina greatly so—the right ovary containing a sac of purulent matter, and partly gangrenous, &c. He then compares this case with one from Dr. Gordon, proving their complete similarity, though Dr. Hamilton denies that Dr. Gordon's cases were those of puerperal fever. He also invites the reader to compare the case in question, with those related by Drs. Denman, Leake, Armstrong, and Mr. Hey, convinced that no man of impartiality will say, these distinguished physicians were mistaken in calling the disease they describe puerperal fever.

Prognosis. In all diseases, but especially in puerperal fever, our prognoses ought to be guarded. They ought to be like the oracular responses of old—capable of bending so as to quadrate with the event, whatever that may be. There is great art in doing this. If you are too mysterious, you may get the name of giving, or of *having* no opinion at all. If you are too clear and decided, you will unquestionably be so often wrong, (however clever) that your pride will be mortified, and, probably, your judgment impugned by those who know not the difficulty of predicting safely in human diseases.

While Dr. Campbell acknowledges puerperal fever to be one of the most fatal, he still asserts that, if taken in time, and treated properly, it is "as curable as others which were at one time considered irremediable." We hardly understand this round-about comparison. That our prognosis will depend much on the time we first see the patient, is sufficiently evident. Dr. Campbell never succeeded except twice, in saving any patient who had been upwards of twelve hours under the influence of the disease, before medical treatment was commenced. They saved few, indeed, who had been so long as six or seven hours ill. An early attack is dangerous, as was before observed. Long continued rigours denote a formidable disease—and so does a repetition of them. Great uneasiness and tumefaction of the abdomen—pain advancing towards

the umbilicus and epigastrium with laborious respiration—obstinate constipation—early diarrhœa with tumefaction of the abdomen—black vomit—great loquacity—a hurried incoherent manner of speaking—delirium—total indifference to surrounding objects—inability to turn on either side—brown dry tongue, with sharpness of the features, are all looked upon, and justly so, by Dr. Campbell, as denoting danger. Some of them, indeed, as the black vomit, may be regarded as fatal.

When we see the patient within an hour or two, says Dr. Campbell, after the accession of the rigours, we may make a favourable prognosis, provided we act upon principle, and without timidity. “An attack from the end of the third day from parturition is seldom fatal.” Only two patients out of the whole number were lost under the above circumstances. We may also, Dr. Campbell avers, deliver a favourable prognosis when puerperal fever supervenes upon uterine hæmorrhage unconnected with external violence. Puerperal peritonitis succeeding abortion or premature labour is a basis for favourable prognosis.

“An early diarrhœa,” says Dr. Campbell, “is always to be considered a good omen, provided the individual has been bled as freely after this state of the bowels has appeared, as if no such symptom had been present. Others again only look upon this symptom as favourable early in the disease, when the pulse diminishes in frequency, and when the abdominal pain and tumefaction subside. The disorder is always modified by an early purging; and I met with several cases to convince me, that one or two smart bleedings will subdue it entirely in such examples; but I have detailed others which clearly prove, that an early diarrhœa will not save the patient without the use of other remedies.” 257.

Ability to turn in bed without assistance—a clean moist tongue, with general perspiration—return of the milk to the mammæ, and of the lochia, when either have been suppressed—the pulse continuing below 100 after bleeding, these are all favourable omens.

METHOD OF TREATMENT.

Dr. Campbell remarks that when we consider the symptoms of puerperal fever, and the almost uniform proofs of inflammation which dissection discloses, it is astonishing that blood-letting should still have opponents. Both Dr. Campbell and Dr. Mackintosh imagine that much of this opposition results from a hypothetical and erroneous supposition that puerperal females cannot bear venesectionary depletion so well as under other circumstances. But without wasting time in these inquiries we shall proceed to lay before our readers the *methodus medendi* of the authors under review.

"Should," says Dr. Campbell, "a practitioner be on the spot during the rigours, I conceive that immediate steps should be taken to diminish the cold fit, by exhibiting *mild* warm diluents, such as weak tea and barley-water, with a view to determine towards the surface, and equalize the circulation. Besides the exhibition of warm diluents, we should recommend bottles containing hot water, to be placed round the patient; also hot bricks, in order, as much as possible, to obviate the effects of the rigour; and we afterward proceed as circumstances shall direct. We are rarely so fortunate, however, as to be present at the accession of rigours; for I have always experienced the utmost difficulty in convincing patients of the necessity of acquainting the practitioner with such an occurrence.

"If ever emetics have proved beneficial, it must have been during the cold stage, by diminishing its violence, and restoring the action of the superficial vessels; but it must be allowed, that they are harsh remedies at so early a period after parturition, as that at which this disorder often shows itself. Among the better ranks, or in the lower sphere of life, when it can be procured, I am certain that the warm-bath will be found extremely useful during rigours; or a blanket wrung out of hot water should be tried. The latter will, perhaps, be preferable, for the exertion of removing the patient from bed, and placing her in the warm-bath, would tend to aggravate the disease, not to speak of the probable bad effects of exposure to cold.

"When we are called after the patient has shivered, we must be guided entirely by the state of the circulation. When the pulse is *firm and regular*, we should not hesitate to use the lancet, at whatever time we are applied to; for, if the individual *must* sink under the disease, nothing surely can be worse than death. I have detailed a case where the woman recovered, although she had not been visited for twenty hours after the disorder began; but, in other instances we were unsuccessful, although they had been attended to in less than six hours from the commencement of indisposition. In every example where we are called within a period of six hours from the accession of rigours, or of the manifestation of abdominal pain, we should bleed the patient immediately to syncope, an effect which was not readily produced in our cases. In the whole, there were only three or four examples of persons having fainted from a detraction of less than twenty ounces of blood, and there were many among them far from being stont or plethoric." 263.

When we are applied to at this early period of the disease, Dr. C. remarks, we ought not to bind up the arm until we have effected syncope, or, at all events, until the pulse is materially affected - and if it requires only ten or twelve ounces to produce this effect, venesection ought to be repeated whenever the patient recovers from her state of prostration, and fainting should again be brought on.

"In any case," says Dr. Campbell, "where a patient has been longer indisposed than what I have specified, the condition of the

circulation alone is to be our guide during the flow of blood, and the arm must be secured whenever the pulse begins to flutter. I have often heard men of great experience say, and I have had many opportunities of knowing their sentiments to be correct, that we seldom do harm by bleeding too much, but very frequently by bleeding too little. I wish this to be particularly kept in view in the disease under consideration; for I am persuaded, that, if our assistance is early called for, we have very little to apprehend from using the lancet too freely; and I am no less satisfied, that in some cases, the contracted or apparently enfeebled state of the pulse, so characteristic of abdominal inflammation, has often deterred persons from performing venesection when it might have been done with advantage." 265.

Some timid practitioners have urged the plea that too copious abstraction of blood will produce effusion, and that thus we may be deceived in our post mortem researches. Whoever has paid proper attention to this subject must know that the effusion from extreme bleeding is of a very different kind from that produced by the excitement or inflammation of a membrane. We have seen some cases certainly where effusion was produced, in all probability, by the intemperate use of the lancet—but it was a clear lymphous effusion in all the cavities—in the chest, abdomen, and cerebral ventricles, without any marks of excitement in these parts. The inflammatory effusion, on the other hand, is always more or less turbid—very generally containing flakes of coagulable lymph, or apparently dissolved purulent matter. There will also, in most cases, be marks of excitement in the serous membrane whence the exudation issued.

The quantum of blood to be drawn, and the repetitions of venesection must depend on the urgency of the symptoms and the state of the circulation. Dr. Campbell observes that he never had cause to repent of blood-letting, even when employed at such a late period as to be without hope of success. Under these circumstances it acted as an euthanasian measure, mitigating the sufferings of the patient, though probably accelerating a little the final issue of the case.

"When the abdomen," says Dr. Campbell, "is much relieved by the first detraction, when the patient can cough and breathe with more freedom, and when she is able to turn with greater ease in bed, these are sure demonstrations that the first bleeding has succeeded to a very considerable extent in subduing the disease; and, under such circumstances, venesection need not be repeated. While this state of matters continues, but the patient ought to be carefully watched, and the abdomen examined by the practitioner at every visit." 266.

When called in time, one smart bleeding has often, with
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proper auxiliaries, subdued the disorder as may be seen in eight or nine of the cases detailed by this author. But should the abdominal uneasiness and other bad symptoms continue after the first bleeding, venesection must be repeated at the end of three or four hours at most, and carried a second time to the extent of syncope. The practitioner is cautioned by Dr. Campbell against being misled by any trifling alleviation of symptoms. As long as there is the least sensation of pain in the abdomen no patient can be considered safe. Even a third or fourth bleeding must take place, if the desired relief be not obtained by the first or second. In general, it happens that at each succeeding detraction of blood after the first, the loss of a very few ounces will suffice to subdue the activity of the vascular system; and it is only in the severer cases that it will be necessary to bleed oftener than two or three times. Dr. Campbell properly remarks that it is the state of the abdomen which must determine the necessity for bleeding, and the pulse, the measure or propriety of it. We need not always expect to diminish the *frequency* of the pulse by bleeding; for in a great many instances it is accelerated by venesection, and continues so for some time after the patient is convalescent. It may be repeated, that the bleedings must be reiterated "so long as the abdomen indicates such treatment to be necessary, and so long as the strength of the pulse will support it."—*Campbell*.

Dr. Mackintosh's directions respecting this paramount measure in the treatment of puerperal fever are almost exactly the same as those of his brother practitioner Dr. Campbell. Dr. M. insists on the necessity of seeing a patient under this disease every two hours at the commencement of the illness, otherwise no treatment, he thinks will do any good. This attention, however, cannot reasonably be expected in the time of an epidemic, where the practitioner has other patients and other diseases to take care of. Dr. Mackintosh cannot be acquainted with the harassing exigencies of *private* practice, or he would not lay down so rigid a rule for his brethren. At the same time we advise the practitioner for his own sake as well as that of the patient, never to remain four hours without visiting a patient in puerperal fever, during the first and second day.

"It must be impressed upon his mind," says Dr. Mackintosh, "that nothing will be of use, unless bleeding is practised within the first six hours, and repeated every two or three, in such quantity as the nature of the disease requires, and the strength of the constitution will admit. It will never do for a physician to walk in, and order the precise quantity of *sixteen ounces* to be abstracted, and walk out again, leaving the patient in the hands of a person,

whose experience, perhaps, is too limited to enable him to judge for himself, or whose youthful appearance is not calculated to enforce respect.—When I find it necessary to abstract blood, some impression is always allowed to be made on the system, or on the disease, before the arm is tied up. If syncope takes place in an early stage of the operation, I desist for an hour or two, and resume it again and again, the moment the state of the pulse indicates the safety of the measure.” 264.

While using the lancet, Dr. Campbell directed the abdomen to be fomented. The utility of this measure is almost universally allowed. It is grateful to the patient, relieves pain, excites perspiration, and draws the circulation and excitement to the surface, thus lessening the internal plethora of the vessels and irritation of the nervous system of the serous membranes. Professor Hamilton recommends the abdomen to be fomented with hot vinegar; and some practitioners add stimulants to the hot water. We believe there is nothing better than the old form of decoction of poppy heads and chamomile flowers. Some Continental practitioners have recommended injections of warm water to be thrown up the vagina, and Dr. Campbell thinks such a measure might be useful; but it has the inconvenience of wetting the bed, without great care. Dr. Mackintosh seems to doubt the propriety of keeping warm fomentations long to the abdomen, lest they should, by their heat, keep up the determination of blood to that quarter. We believe this fear is groundless. Wherever there is much pain or irritation attending an inflammation, warm fomentations will generally be serviceable, even when the phlogosis is external, and the heat consequently applied to the very part inflamed. In peritoneal inflammation there are both pain and irritation; and the heat applied to the external surface relieves these without increasing, but, on the contrary, diminishing internal congestions of blood.

Dr. Campbell's statements respecting local bleeding will be understood by the following extract:—

“Local bleeding is a remedy from which much advantage will be derived; an opinion, which the observations I have had an opportunity of making, in cases attended with uterine effusions, fully confirm. In every instance where we have not succeeded in giving an effectual check to the disease after two or three smart bleedings, we should never neglect the application of a number of leeches to the abdomen.

“From 60 to 100 of these animals should be applied over the surface of this cavity, and as many of them placed in the vicinity of the pudendum, and termination of the round ligaments as possible, because, from the connexion of these points with the uterus, the

parts in a state of disease are more likely to be effectually acted on. The leeches should be re-applied from time to time, according as the pain seems to be determined or renewed towards particular points.* As the good effects to be expected from their application will depend in a great measure on the subsequent effusion from their bites, it should be carefully promoted. To accomplish this, some have recommended warm cataplasms; others, clothes immersed in warm water. Each, no doubt, has its advantages. The poultices will certainly preserve the bed-clothes, and keep the patient comfortable, by absorbing the effused blood; but the wounds of the leeches will be blocked up sooner by their application, than if the warm compresses had been used. The reiterated application of clothes immersed in warm water, must render the bedding wet and uncomfortable,—so far they are certainly objectionable; but they will assuredly tend to promote the effusion for a longer period than the cataplasms, which is our chief object in applying them." 271.

Dr. Mackintosh recommends the application of from 30 to 100 leeches to the abdomen, after an impression has been made on the system by general bleeding. In our own practice we hesitate to apply more than 24 or 30 leeches at one time. The bites are not so easily stopped as some people imagine, and we have seen alarming debility produced by the protracted issue of blood from leech-bites in some cases of this kind.

In respect to blisters, Dr. Campbell is decidedly against them, and Dr. Mackintosh says he abstained from them in the late epidemic, in consequence of being assured by some of his brethren that they would be of no use. He does not think, however, that he acted wisely in adopting this counsel, and this is our opinion also. We believe that Professor Hamilton advises the application of blisters. We generally apply a very large blister after the leeches have ceased to bleed. It is vain to tell us that a large blister deprives us of the further application of leeches. There are plenty of places for more leeches—the groins, the flanks, and round the circumference of the blister. Dr. Campbell speaks of *sinapisms* and blisters at the same time. If he applied sinapisms to the abdomen, we do not wonder at their producing great irritation and little, if any, good. They are vile and inhuman applications in any disease but those of the comatose class, when there is little sensibility of the surface. They give ten times more pain than blisters—and they do not produce one

* "Dr. Frith has stated, that in the Royal Lying-in Hospital, Dublin, leeches were thought preferable to venesection in puerperal fever, and that he has known patients derive much advantage from the application of thirty, forty, or even ninety of them to the abdomen, followed by warm fomentations after their removal."

quarter of the discharge. They never should be applied to the abdomen of man, woman, or child, in an inflammatory complaint.

"In the commencement of the disease," says Dr. Campbell, "free purgation, both in a theoretical and practical point of view, must be considered as highly proper; because at this period, the excitement will be confined to the uterus or peritoneum, or both; and no injury will arise to the intestines from exciting their action by producing increased peristaltic motion, while it is obvious that the secretion from the mucous coat will be increased, and congestion removed.* From the consent of the uterus with the intestines, the secretion from its vessels will also be augmented. When the disease has existed for some time, it is natural to conclude, from the pain becoming general all over the abdominal cavity, and the increased irritability of the stomach, that the intestinal tube is involved in the general derangement, an opinion which dissection has invariably confirmed. In this stage, therefore, I do not think we should be justified in having recourse to active purgation, nor even to an occasional brisk cathartic." 273.

Dr. Mackintosh has also a high opinion of purging. He insists on the necessity of keeping up a constant discharge, "and it is sometimes wonderful to see the copious stools that will come away when the medical attendants have thought it was impossible that any thing could be in the bowels." He does not approve of drastic purgatives. Castor oil, neutral salts, and the like, are recommended by both our authors. Large enemata are very properly directed by Drs. Campbell and Mackintosh.

"When," says Dr. Campbell, "the intestines are obstinate, a cathartic clyster should be administered every hour, to assist the other purgative medicines. When the bowels have been once opened, the domestic enema, to the amount of lb. ij. as warm as the individual can comfortably bear it, must be thrown into the rectum every second or third hour, while there is any pain in the abdomen. The enemata will increase the secretion from the vessels terminating on the internal surface of the alimentary canal, and greatly soothe the feelings of the patient, by acting as a fomentation to the internal parts.† In the latter stages of the disease, they

* "Dr. Labatt tried the sub. mur. hyd. in doses of ℥j. and ℥ss. as recommended by Dr. Armstrong, and he at first thought its exhibition in such large quantity useful; but he afterward had reason to be satisfied that it was more beneficial when exhibited in doses of ten or twelve grains, in combination with some other purgative, such as jalap.—Armstrong, p. 225."

† "Injections act as fomentations to the uterus, and they should be thrown up frequently, and in large quantity.—MS. of the late Professor Young's Lectures."

should be preferred to purgatives by the mouth, as being less likely to produce injurious irritation of the intestines." 274.

Dr. Campbell and Dr. Mackintosh are both aware of the great utility to be derived from determining to the surface of the body, and promoting the healthy secretion of the intestinal canal and biliary organ.

"It is of the first consequence," says Dr. Campbell, "to promote general perspiration, with a view that, by determining toward the surface, we may remove local congestion. With this intention, from the moment the cathartic medicines have begun to act, we should exhibit the antimonial oxide in combination with the submuriate of mercury, as directed in the cases. The submuriate, independent of its good effects in promoting the action of the antimony and the cathartics, will also prove beneficial in removing accumulations of the hepatic system." 274.*

Dr. Mackintosh does not point out the means which he employed for the above-mentioned purposes. From the *hydrargyro-phobia* which seems to haunt him on all occasions, we suppose he trusted to antimony or ipecacuan alone. If so, we would not advise others to adopt the same practice; for there is but too much tendency to gastric irritability in all abdominal inflammations, and when sickness is once excited, we can seldom allay it afterward. We should therefore prefer the plan pointed out by Dr. Campbell.

In a foot note Dr. Campbell informs us that Dr. Davis, (of George-street, Hanover Square, London,) after reducing the system by local and general bleeding and purging, orders the abdomen to be covered with a large blister, and digitalis to be administered in powder, in doses of one or two grains every second hour, and very generally with the best effect. It is well known that Professor Hamilton, of Edinburgh, is much attached to digitalis in puerperal fever. Of oil of turpentine, neither of our authors have any good opinion. In tympanitic affections of the abdomen, occurring in this disease, it was found very useful by that able physician, Dr. Labatt, of Dublin. Of Dr. Payne's observations we shall not again take notice.

* Dr. Vandeuzande, Physician to the Civil Hospital of Antwerp, has lately published a volume on puerperal fever, or puerperal peritonitis, in which he details his almost uniform success in this disease since the year 1806, by pursuing the plan of calomel and opium, first recommended in pulmonic inflammation by our countryman, Dr. Hamilton, and since very extensively employed by our tropical practitioners, in fevers and internal inflammations. He asserts, that the cure of puerperal fever was certain, so soon as the salivary glands became affected. He appeals to the testimony of all the pupils and attendants of Antwerp Hospital for the truth of his statements.—See the *Quarterly Journal of Foreign Medicine*, &c. No. 17. p. 78-9.

Of opium Dr. Campbell scarcely speaks at all ; and except an occasional anodyne diaphoretic draught at bed-time, in some particular cases, we believe he has never employed that medicine. This we suspect is a defect in his *methodus medendi*. We have administered it in very large doses after a powerful impression had been made on the system by blood-letting with very good effects ; and we have reason to know that this is the practice generally pursued by Dr. Armstrong at present. Dr. Mackintosh is decidedly favourable to this plan.

"It has already," says Dr. Mackintosh, "been stated, that I have always placed a great deal of dependence on opium, in the cure of inflammatory affections. I used to prescribe one or two grains of solid opium, or from 60 to 100 drops of laudanum, half the previous dose to be repeated every three hours till the full effect was produced. Experience has long ago convinced me, that the apparent want of efficacy of this useful drug, (as well as of many others,) proceeds entirely from its being administered in insufficient doses, and repeated at too long intervals. In inflammatory affections, there is more to be done than the mere abstraction of blood, using purgatives, and calling in to our assistance a strict anti-phlogistic regimen. Nervous irritation alone, if long continued, will undoubtedly produce inflammation ; but how much more will it tend to re-produce inflammatory action recently, or perhaps, not yet entirely subdued. It has been proved by experience, that there exists, after child-birth, an increased state of irritability, to allay which, in puerperal fever, I think of more vital consequence, than in any other diseased state of the system." 273.

Dr. Mackintosh found Mr. Batley's liquor opii sedativus a valuable medicine. He begins with a dose of fifteen or twenty drops, and it is repeated in doses of ten drops every hour till relief be obtained.

It is hardly necessary, after the pathology and treatment sketched out here ; to say any thing respecting diet and regimen during the fever and convalescence. It is evident that great abstemiousness must be the rule of conduct.

Both our authors take some short notice of what has been termed by Dr. Armstrong the congestive form of puerperal fever, which appears to us to depend entirely on want of power in the system to establish reaction. In some of the unwholesome countries of the earth it is not uncommon for men to die in the cold stage of ague, thus exhibiting exquisite specimens of congestive disease. When congestion takes place in any fever, it is just a predominance of the cold over the hot stages—where they are disproportionately blended, instead of succeeding each other—where one part is in a state of excitement, and another, or many others, in a state of tor-

por or venous turgescence. These cases are, of course, far more dangerous, and more difficult to manage than those of pure excitement. Dr. Campbell only met with one instance of this kind, and speaks hesitatingly of the treatment, as not founded on personal experience. The following extract presents all that is known on the subject.

"In the treatment of this affection, the great and continual depression of the living powers from the moment it is ushered in, marked by the diminution of the temperature of the body, and the retrocession of the blood from the surface, as well as the rapid and destructive progress of the disease, would seem to suggest more than ordinary efforts on the part of the practitioner to support the powers of the system. At the same time, since the examination of the body after death demonstrates such extensive and decided evidences of congestion in the vessels of the large cavities, every attempt should be made to remove this accumulation of blood, by equalizing the circulating mass, and determining towards the surface.

"Whenever a practitioner is called to a puerperal patient after a paroxysm of rigours, and discovers that its effects have been too permanent, producing an unusually weak, slow, and perhaps an irregular pulse, with great prostration of strength, pallid and collapsed countenance, with coldness of the whole body, but more especially of the extremities, such steps should immediately be adopted as are likely to cause a re-action of the vascular system. With this view, the patient should, with the least possible delay, be placed in the warm bath; or, if she cannot be removed from bed, we should attempt to restore the heat of the body, by covering her with a succession of blankets wrung out of hot water, while she is at the same time to be surrounded with bottles, or bladders, containing hot water; hot irons, or hot bricks, may also be successfully employed for the same purpose. Frictions, with ardent spirits, or with the *aq. amon.* might prove beneficial; and a cautious attempt must be made to recruit the living powers, by the internal exhibition of some diffusible stimuli—either sulphuric ether, or brandy punch, given in suitable proportions at proper intervals until the temperature of the body be somewhat restored; or camphor, in large doses, may be administered with the same intention.

"In consequence of the blood having receded from the surface, there must be a great accumulation of it in the large veins immediately connected with the heart, in common with other venous trunks; which must not only interrupt the transit of the venous blood from more remote parts towards the right auricle, but even obstruct the immediate action of the heart, an organ already somewhat paralyzed by the powerful shock which the system has received.

"From this oppressed state of the heart, we might from theory be disposed to subtract blood from the general system, with the intention of relieving this organ; but were we tempted to have recourse

to this practice before reaction has commenced, I doubt not but it would speedily determine the fate of the patient. If bleeding, therefore, is ever to be tried, it must be with great caution. When we have succeeded in restoring the action of the heart and arteries, and temperature of the body to some extent, the patient must then be treated according to the symptoms which afterward present themselves. In these cases, it is scarcely necessary to state, that very little can be effected except at the commencement; and even then, I must agree with Dr. Armstrong in thinking, that the results of our practice, in many instances, are only calculated to throw a stigma on the resources of our art."* 283.

In the few cases of this kind which Dr. Mackintosh saw, the time for treatment was gone by, and he was only left "a silent witness to the speedy termination of life. From analogy with other congestive diseases, he would place the patient in a bath of 112°, and if possible, open a vein while immersed." We would be more inclined to wait till reaction came on by the bath and diffusible stimuli—and then to bleed according to the degree of the superinduced excitement.

Dr. Campbell closes the original part of his work with many judicious observations on the prevention of puerperal fever, and, indeed, of puerperal diseases in general, which are well worthy the attention of the junior branches of the profession. He then introduces tables indicative of the state of the weather during the prevalence of the late epidemic, concluding with an appendix, containing a re-publication of Dr. Gordon's Treatise on the Epidemic Puerperal Fever of Aberdeen, originally published in 1795, and now out of print, and very scarce.

Dr. Mackintosh concludes his work with an analytic sketch of the practice of Hulme, and a short review of the cases of Leake, Gordon, and Hey, principally with the view of showing the failure of bleeding, from not being boldly and confidently followed up; and the superior success of that practice, in the same hands, when early and copiously employed. Dr. Mackintosh has, also, added an appendix, containing eight pages of strictures on Mr. Moir's case of puerperal fever, on which we made a short commentary in our last number. Dr. M. has come to almost exactly the same conclusions as ourselves—and after all, we think, the case was hardly worth so much criticism.

In the endeavour to present our readers with a copious view of the etiological, pathological, and therapeutical matters contained in these two important volumes, we have left

* Campbell, p. 282—3.

ourselves no space for extracting any of the numerous and highly interesting cases and dissections detailed in the works before us, especially in Dr. Campbell's publication, which contains the histories of no less than *forty-eight* cases, with many dissections. We never remember to have seen such a strict coincidence of opinion and practice between any two cotemporary medical writers, as Drs. Campbell and Mackintosh have here evinced—a circumstance that not a little increases our confidence in the accuracy and fidelity of both writers, and in the truth of the doctrines and practices they embrace. It cannot be necessary to inform our readers, that we are attached to the views which are here advocated,—not from theory, but from observation of facts, and from a pretty extensive field of pathological investigation. We cannot, therefore, but view with concern, an attempt in the northern metropolis to revive exploded notions and antiquated pathology, with all the departed ghosts of debility and putrescency, which we had hoped were laid in the tomb of the Capulets. The publications under review are well calculated to counteract these anile superstitions, so long and so often stained with the blood of their victims; and, therefore, we have been anxious to give as much scope and publicity as possible to the contents of the volumes before us. The only objections we have to urge, have already been hinted at in the course of this article—namely, the non-admission, on the part of our authors, of the modifying influence of epidemic constitutions. Dr. Mackintosh does not even allude to this subject, and Dr. Campbell concludes that the epidemic puerperal fever only differs from the sporadic, in requiring more decided measures of depletion. We are quite ready to admit that the symptoms and dissections of the late epidemic of Edinburgh sanction this conclusion, *as far as that epidemic was concerned*, and that the authors in question were perfectly justifiable in the depletive measures they so ably put in force. But still we are unwilling to admit the *general principle*, that all epidemic fevers are of the same character, and require the same treatment. There is another point in which we do not quite coincide with our authors—their *denial of contagion* in puerperal fever under certain circumstances. We think there is good proof on record that a contagious character is occasionally added to its other bad properties; and as this belief is not calculated to do any harm that we know of, but some good, in as much as it will lessen the number of intrusive visitors, we think too much skepticism is rather reprehensible.

In fine, we are compelled, by our duty to the public, to state our preference of Dr. Campbell's work, as containing more dense practical matter, and less speculation, than the

work of Dr. Mackintosh. The latter work, at the same time, we have no hesitation in denominating a very able introduction, and that it only suffers by comparison with a cotemporary, which appears to be erected on a more extensive experience of the epidemic in question, and to be constructed with more care and less precipitation. We infer, that it was constructed with less haste, because it is far more systematic, and far more clearly arranged. On this, and many other accounts, it is better adapted for the end which it is designed to attain, than the work of Dr. Mackintosh. We are sorry, indeed, that these two deserving practitioners, who were frequently in attendance on the same patients, and whose views of the complaint so nearly harmonized, should not have coalesced in one work, as is often done on the Continent, and thus saved the public the purchase of two instead of one publication. We trust that the public will award to us the merit of having candidly and impartially analyzed the productions before us; and to them we appeal, also, for the justice of the decision we have ventured to pronounce on their comparative merits.

P.S. Just as the last sheet of this article was going to press, we received a pamphlet, entitled "Notes on Dr. Mackintosh's Treatise on Puerperal Fever, by James Moir, Surgeon." It appears to be a tissue of the most slanderous abuse and libellous defamation of Drs. Mackintosh and Campbell, that we ever had the misery of perusing! We cannot sully our pages with any notice of so malevolent and scandalous a production. As a great portion of it is taken up with the defence of Professor Hamilton, and as several of that gentleman's communications to the author are therein printed, we have little doubt, in our own minds, of the *real source* whence the pamphlet issues. It requires, and deserves no other argument than the *argumentum baculinum*, which it would, long ere this, have received, had it been put forth in "Paddy's land" instead of "Auld Reekie." If the gentlemen thus traduced can tamely put up with such insults, it must be for the purpose, we should imagine, of prosecuting the infatuated and infuriated author for a libel. We had hardly supposed that such rancorous personalities would, at this time of day, have issued from the medical press; but Edinburgh is famous for these productions—and the more shame for her!

XII.

Observations on Phrenology, as affording a systematic View of Human Nature. Edinburgh, Waugh & Innes—Ogle, Duncan, & Co. London; 1822.

PHRENOLOGY, from *φρεν* mind. and *λογία*, is the term used by T. r. Spurzheim to denote a peculiar system of doctrines concerning the mind, founded on certain views of the physiology of the brain. The propriety of the term will become apparent, when we recollect, that the brain is the organ upon which the manifestations of the different mental powers depend; and that for every mental act, there must be a corresponding cerebral affection; and, therefore, that a correct exposition of the functions of this organ will necessarily imply a true theory of mind.

These doctrines have been taught for more than 20 years, at Vienna and Paris; but, it was not till 1816, when Dr. Spurzheim visited England, that general attention was attracted to them in this country. He delivered lectures upon the philosophy of his system, and gave demonstrations of the anatomy of the brain, by which public curiosity was excited in an extraordinary degree, and much angry disputation occasioned. Established opinions received a shock, and all the partialities which accompany them were called into play to decry the merits of the new doctrines, on the one hand; while their novelty, and a certain degree of enthusiasm which inspired their advocates, shed a dazzling lustre around them, on the other. Cool deliberation, always essential in forming a correct judgment of a new discovery, was thus excluded; and, after many pamphlets had been published and answered on the one side and the other, the subject appeared to fall into neglect, with its merits as undecided as when first introduced to the notice of the public.

After a silence of two or three years, however, the advocates of phrenology appeared again upon the field, and showed, if possible, a stronger conviction of the truth of their opinions, and a more complete acquaintance with the doctrines themselves, as well as with the merits of the objections which had been stated against them. Mr. Combe's *Essays on Phrenology* led the way;—they appeared in November 1819, and their author testified strongly in favour of the truth of the new doctrines, and strenuously insisted on the necessity of inquiry into a subject which, in his opinion, so nearly affects the best interests of the human race. To this work, soon after succeeded the "*Illustrations of Phrenology*, by Sir G. S. M'Kenzie,"

in which the author gave portraits of remarkable characters, and compares their mental manifestations with the development of their brains. He contends, also, for the accuracy of the principles of phrenology. Several able criticisms next appeared in the pages of the *New Edinburgh Review*, in which the editor pledges himself that the doctrines are founded in nature. In 1820, Dr. Elliotson, in notes to the third edition of his *Translation of Blumenbach's Physiology*, gave a decided testimony to the truth and importance of the science.

In February 1820, a society was established in Edinburgh for cultivating and diffusing a knowledge of phrenology. A collection of skulls, casts, and busts, intended to exemplify the several organs and their combinations, was formed, and is every day receiving additions. This collection is open weekly to the inspection of the public. Meetings are held during the session, for discussing all subjects connected with phrenology, such as its application to elucidate the philosophy of mind, to education, legislation, medicine, and medical jurisprudence. The list of members includes gentlemen of talent and respectability of the three learned professions, besides artists and literary characters; and the numbers are on the increase. In 1821, Mr. Abernethy published "*Reflections on Phrenology, addressed to the Court of Assistants of the College of Surgeons, London,*" in which he treated it as the true system of the philosophy of mind, and recommended it to the special consideration and candid examination of medical men. About the same time, appeared Dr. Spurzheim's book on the *Application of Phrenology to the Improvement of Education*. In spring 1822, a society similar to that of Edinburgh, was instituted at Philadelphia, of which Dr. Physick is president, a gentleman who is well known to our readers. Among its members are to be found some of the most eminent men in law, medicine, and divinity, in that city. They have procured copies of all the casts in this country, and of the books in use among the phrenologists. Mr. Combe's *Essays* were reprinted under the direction of the society, and enriched with the anatomy which he had omitted. And, lastly, have appeared the "*Observations on Phrenology,*" by the anonymous author, now before us, who considers it "as affording a systematic view of human nature."

When we find a rooted conviction of the truth of the new views, and a deep sense of their importance arising at this distance of time, in the minds of cool and able men, this circumstance itself affords a presumption, that there is something substantial at the bottom, whatever may have been added by fancy. The glare of fashion and novelty, which at first placed the structure in too dazzling a light to be clearly contempla-

ted, has at last passed away, and it is perhaps only now that the subject comes properly under the candid and dispassionate consideration of the man of science, because now it comes before him stript of all foreign support, and resting entirely on the basis of its merits. The partialities and prejudices with which even the most vigorous minds are at times assailed, have had time, in a great measure, to disappear. The present moment is, therefore, particularly favourable for an examination of this long agitated question. Impelled by these considerations, and aware of the extreme importance to medicine and to philosophy, of the discovery of the functions of the brain, we have ventured to notice the publication at the head of this article, more with the view of seriously recommending a liberal and candid discussion of the merits of both sides of the question, as the most philosophical and sure way of ultimately arriving at the truth, than of attempting to deliver any decisive opinion of our own upon the subject.

We are led to desire this calm consideration the more, because hitherto, we conceive the weight of fact and argument and philosophy, to preponderate rather on the side of the phrenologists, than on that of their adversaries ; not because we mean to assert that the opposite views are incapable of support, but that the opposition has been conducted in a way altogether unphilosophical : ridicule and vague assertion having been too unsparingly employed on the one side, while vigorous reasoning, and an appeal to Nature, have been constantly held out upon the other. The consequence has been, that although thousands boldly assert the whole of the doctrines to be imaginary, no person is to be met with, who is able to show a clear and philosophical reason, why these ought to be disregarded ; and it is a curious fact, well worthy of observation, that, except the late Dr. Gordon of Edinburgh, who fell, as it were, into a serious discussion inadvertently, and unintentionally, by his intemperate article in the Edinburgh Review, no author of note, either medical or metaphysical, has chosen fairly to grapple with the subject, and expose its errors ; and of those, who have written, we do not know one, who has made good his objections in the judgment of impartial men, and replied satisfactorily to the answers given by the disciples of the new school. Dr. Roget, indeed, is another author of consideration, who has delivered an adverse opinion on their merits ; but he appears rather as a historian of the doctrines, who sums up his account by delivering an opinion against them, than as a regular enemy who comes into the field to oppose and destroy them. On this account, we do not hold this gentleman as pledged even on the side which he has espoused, so as to stake his reputation on their

futility, but view him as a critic open to conviction, if he has pronounced an erroneous judgment. Many persons, no doubt, regard the doctrines as too ridiculous to merit a serious refutation, but we cannot subscribe to this opinion. The writings of Drs. Gall and Spurzheim themselves are worthy of a calm and philosophical refutation, if they contain erroneous views; but when other men of judgment, and not destitute of talent, come forward as supporters of their opinions; and not only so, but when societies are formed for their cultivation, we suspect that the tide of ridicule will soon begin to flow in an opposite direction, if those who patronize the established system, persevere in this supercilious treatment of their opponents. The contempt of the Chinese for the science and literature of Europe, does not arise from a more enlarged and comprehensive understanding in that nation; but it marks the extent to which ignorance and prejudice possess the mastery over their minds.

Other, and still stronger reasons, however, exist, why *serious inquiry* should be no longer delayed. The reader will bear in mind, that the general rejection of any new discovery affords no test whatever of its falsity. In proof of this, we have only to recollect the histories of the most important discoveries in medical or philosophical science. The celebrated Harvey, for his glorious discovery of the circulation of the blood, was long ridiculed and persecuted; his facts were neglected, and his theory met with almost universal condemnation. Hume mentions as a curious historical fact, that no physician, at that time, above 40 years of age, ever acknowledged his theory. Galileo was rewarded for his discovery of the motion of the earth, by persecution and imprisonment. Nor are these, by any means, solitary instances. Such occurrences are, in fact, but too common; and since such things have happened, we ought to be the more cautious, lest unwillingly, we add another to the list, even in this enlightened age.

In the next place, notwithstanding our almost total ignorance of the use of the brain, it has been universally regarded as one of the most important organs in the whole body, consequently, there has been no lack of talent or of zeal in endeavouring to ascertain its precise functions. The unceasing efforts of the most ingenious and profound philosophers, however, having, after a lapse of many hundred years, added so exceedingly little to our knowledge, we cannot but suspect that, if its precise functions are ever to be discovered, the modes of investigation hitherto in use, are not those, by which we shall be able to attain the end in view.

Physiologists are agreed, that the functions of any organ

are not to be discovered by dissection alone; nevertheless, investigations of this kind ought to be conducted in such a way, as to afford, at least, a chance of discovering the *structure* of the organ, and the relation of its parts. In dissecting the brain, however, this rule has not hitherto been generally attended to. The organ is frequently examined, by slicing it horizontally, a mode of dissection, the use of which may be aptly illustrated, by supposing the same method applied in tracing the structure of the arm or thigh. What notion could be formed of the anatomy of these parts, by cutting circular slices through skin, muscles, blood-vessels, nerves, and bone, and minutely noting the appearances presented by each different section? How, then, can anatomists expect to succeed in discovering the structure of the brain, by slicing across the convolutions, instead of following the course of the fibres from the medulla oblongata to the farthest point of divergence to which they can be traced. The method of dissection, therefore, recommended by Drs. Gall and Spurzheim, appears to us well worthy of serious attention, in consequence of its own obvious merits alone, and still more so, seeing that it has met with the approbation of the French anatomists, whose opportunities of procuring brains in a proper state for examination, enable them to decide this point upon a more extensive experience than ours.

Although, however, the structure were perfectly ascertained, the functions would not be thereby disclosed; and as the founders of phrenology pretend to have discovered the functions also, two points naturally present themselves for our consideration, previously to forming a judgment upon their assertions. First; the means which they employed in their investigations: and, secondly, the coincidence or contradiction between the results obtained, and such facts in nature as are already known and established. If the means be philosophic and adequate, we may then listen to the conclusions. Should the results stand in opposition to established opinions, we ought not on this account alone to reject them, because established opinions may be erroneous; but as Nature is never inconsistent, if we find *ascertained facts* contradicting the phrenological views, we shall then have a good reason for treating them with disrespect.

First, then, with regard to the means. The operations of mind never come under our cognizance, but as connected with, and influenced by, certain changes in the state of the brain, for this organ is admitted, in all systems of philosophy, to be the medium, the *sine qua non*; by means of which, the mind acts upon, and is put in communication with, the external world. The immaterial principle eludes the research

of our grosser senses, and we are obviously incapable of attaining a knowledge of the nature of mind as it exists in a disembodied state. All therefore that properly comes under the province of the physiologist or philosopher, is to ascertain the mutual influence of mind and organization on each other, and the conditions of the organization required for the healthy operations of the different mental powers. Hitherto the extent of *certain knowledge* goes no farther than this, that a sound state of the brain is requisite for the manifestations of the mind; but whether the whole brain is requisite for every single mental act, or, if not, what particular part is required for the due operation of any particular faculty has not been demonstrated. Dr. Gall advanced farther, and tries to prove that the latter view, viz. that the plurality of faculties and organs is the true one, is the fundamental principle of phrenology.

Now metaphysical philosophers, in investigating the phenomena of mind, have depended chiefly on the aid of consciousness for revealing the laws by which they are regulated, without attending to the effects of the organization. In consequence so they appear to have taken too limited a view of the subject. The gradual and successive expansion of the faculties, keeping pace with the progressive perfection of the brain; the existence of idiocy, and of insanity, and the daily phenomena of disease causing changes in the operations of the mind, prove the constant and unceasing influence of the organic medium on the mental manifestations. The neglect of the influence of the organization appears therefore to have been one great cause of the constant failures which have hitherto occurred to metaphysicians in forming theories of the mind. Every mental act is performed by means of the influence of the organic medium, and yet, when it is not revealed by consciousness does not reveal to us even its existence. The insufficiency, therefore, for unfolding the whole truth concerning the mind is obvious, and in consequence it is clearly an inadequate basis, on which to erect a complete system of mental philosophy. This conclusion appears the more certain when we recollect that consciousness has never conducted philosophers to precisely the same result; and that in the same individual according to the state of his mind, age, and other circumstances. By its aid we can only ascertain the successive conditions of our own mind upon the presentation of certain impressions, but because certain emotions arise or succeed each other in a certain order, and at a certain time, can we affirm, that such an order exists in the minds of all men, at all times? Certainly for the first person we meet with has a mind different

stituted from our own, and he denies the accuracy of our observations. So that by this means alone we can never discover the nature and number of the mental faculties, or the existence of the organ by which they act.

Physiologists being fully convinced that the functions cannot be discovered by dissection, have next supposed that by careful observation of the effects of injuries of this organ, we shall be able to ascertain the functions of its different parts ; but we suspect that this method also is as inefficient as the others. Sir Everard Home, with the laudable view of throwing light upon a difficult subject, made a collection of upwards of fifty cases of cerebral injury, and noted carefully the effects produced, but these effects were all general, as coma, delirium, sickness, vomiting, and the like, without any constant or particular modification of one or several mental faculties ensuing from each particular lesion suffered by the brain. Such are the modes of inquiry hitherto in use.

In opposition to them, the phrenologists recommend the method of comparing the developement of the head with the manifestations of particular faculties of the mind, in a state of health, and affirm that in cases where an individual propensity, sentiment, or intellectual power, is extremely vigorous, a certain part of the brain will be found very largely developed, while in other cases, where the same faculty is remarkably feeble, the same part will be found exceedingly small. The only rational objection which can be stated to this method, is that the skull does not indicate the size of the brain. The phrenologists reply to this objection that, admitting a certain degree of inequality or want of parallelism between the inner and outer tables to exist, it is so small (not exceeding the eighth part of an inch in the general case) as not to affect the result ; because a large organ of cautiousness, or ideality, or love of approbation, for instance, will cause the skull to protrude a full inch more than a small organ will do, so that the inequality of one-eighth of an inch, even if it exists, is lost in the extent of the general difference. This also is a tangible statement ; and if it be true, that persons of a very cautious character have an inch more of brain in a particular quarter than those who are very incautious, the fact is worth the knowing. Being solemnly asserted as a truth by persons of intelligence and reputation, it is the summit of absurdity to laugh at their assertion, but at the same time not dare to contradict it from observation. On the whole, therefore, we conclude that the common methods of investigating the connexion betwixt the mind and the brain, are not adequate to attain the ends in view, and that there is nothing in the phrenological mode of observation which ought to prevent us from putting it in practice.

In the next place, we may compare the alleged results of the phrenological method of inquiry with several well ascertained natural phenomena, and mark the coincidence or opposition between them.

The phrenologists affirm, that a plurality of faculties and organs exist, and that one of them may be diseased, deficient, or more than usually vigorous, without affecting the state of the others, just as the organ of vision, of taste, or of touch, may be defective in one individual, while that of hearing, or of smell, remains in its usual state. The doctrine which stands opposed to this is, that the whole brain constitutes but one organ, and that every part of it is employed in every mental act. Now let us apply the two theories to several well ascertained physiological and pathological phenomena, and mark which of them quadrates most exactly with positive experience. The following facts are too well ascertained to admit of dispute. We find some individuals, who, from birth, are deficient in some one or more of the internal faculties of the mind, as in the case of partial idiots.

"It is remarked," says Fodéré, in his *Traité du Goitre et du Cretinisme*, p. 133, "that by an inexplicable singularity, some of these individuals (cretins) endowed with so weak minds are born with a particular talent for copying paintings, for rhyming, or for music. I have known several who taught themselves to play passably on the organ and clavecin; others who understood, without ever having had a master, the repairing of watches, and the construction of some pieces of mechanism." He adds that these powers could not be attributed to the intellect, "for these individuals not only could not read the books which treated of the principles of mechanism, *mais ils étaient déroutés lorsqu'on en parlait, et ne se perfectionnaient jamais.*"

Pinel speaks of a female idiot who had the most astonishing propensity to imitate whatever she heard or saw done. She repeated whole sentences, but without attaching any idea to them. He distinctly admits the fact that individuals exist, who from birth possess a limited capacity for receiving certain kinds of ideas, and an utter incapacity for all other kinds; or in other words, who possess one or more faculties of the mind to a limited extent, and appear to be deprived of all the others. Every writer on insanity, as Rush, Haslam, Esquirol, admits the partial developement of certain powers of the mind in idiots, and Rush in particular not only alludes to the powers of intellect, but also to the partial possession of the moral faculties. Some idiots, he observes, are as remarkable for correct moral feelings, as some great geniuses are for the reverse. One never utters an intelligible sentence, because he does not comprehend it, although he can repeat

the words automatically, like a magpie or parrot, while another not only understands the words of his mother tongue, but even delights in speaking. One is all good nature and complaisance, another quarrelsome and mischievous. One is pious, and another obscene. Dr. Rush mentions one who was remarkable for his religious feelings, and we have frequently seen an idiot who could never connect two sentences, except when engaged in devotion, to which he had a natural tendency. He was able to repeat a prayer verbatim, after hearing it two or three times. Fodéré calls these "inexplicable singularities." No one will suspect him of favouring phrenology by reporting cases which have no existence, and as they exist, we really agree with him in saying that they are truly inexplicable on the general supposition of the mind manifesting all its powers by the medium of a single organ. The phrenologist, on the other hand, says that to him they offer no such difficulty, for supposing it proved that each faculty manifests itself by the medium of a separate organ, it is as easy to conceive that one of these organs may be defective from birth, with or without a corresponding deficiency in all the others, and of course with a deficiency in the faculty connected with that organ, as it is to conceive that the organ of hearing may be unfit for performing its function, while those of sight, taste, smell, and touch, may either remain unimpaired, or may be impaired to a less degree. In the case of the external senses, he maintains, we never hesitate in assigning the cause and seat of the deficiency to the organ which executes the function of the diseased sense. We never refer it to a difference in the constitution of the immaterial principle. Then why should we not also refer defects in the internal senses or faculties to an imperfection in the state of the organ of the particular faculty in fault? It would certainly be far more philosophical and consonant to Nature to do so, than to say that God had created souls of idiots and souls of men of genius.

The phrenologists assert that, upon examination, these differences are found sufficiently accounted for by the defective state of the organization; and that partial idiots, for example, although they manifest one or more faculties more powerfully than others, yet seldom manifest any with the energy of a sound mind. Now, Pinel and many other writers agree in saying that idiots from birth are generally possessed of very deficient brains, taking them as a whole, and this observation we have had an opportunity of confirming from our own experience, both in this country, and among the cretins in Switzerland, who are particularly alluded to by Pinel. Some idiots, no doubt, have large heads, but they are either dis-

tended by water, or otherwise diseased. Farther, these individuals differ in the *qualities* as well as *quantities* of their mental endowments. Were the brain as a whole the organ of mind, and its general small size the cause of idiocy, it follows that they ought to be idiotic to the same extent in all their faculties, or they ought to be capable of manifesting every faculty exactly to the same extent, which is not the case, for the same individual sometimes possesses some faculty to a considerable degree while he is extremely defective in others. To say then that one organ manifested all these faculties is much the same as if we said that the eye is the organ of hearing as well as of vision, or that all the five senses executed their office by means of a single organ, because the difference between the faculties possessed and those deficient in the former case is as great as in the latter, only in the first the division of the organs is more concealed from our external senses. Another set of cases, with which we are well acquainted, is that in which one or more faculties of the mind are diseased, while the others remain sound, or the state known by the name of monomania. Pinel, Esquirol Haslam, Cox, Rush, and, in short, every author on insanity speaks of the partial affection of the mental faculties as a thing of every day occurrence, and the very adoption of a particular name to designate that state is in itself sufficient evidence of the existence of such partial insanities. Esquirol believes that in monomania some affection of the sentiment alone exists, without disease of the intellectual faculties, while in mania the intellect is deranged. Here again the difficulty recurs of accounting for these cases on the supposition of one organ executing all the functions of the mind, while on the hypothesis of the existence of a plurality of organs, on serving each faculty, no embarrassment appears. The phrenologists, indeed, affirm that, without being intended, monomaniacal affections have received different names according to the nature of the faculty most excited by disease. Thus erotomania and nymphomania, according to them, are the consequences of diseased action of the cerebellum, or organ of the sexual propensity, and many surgical cases on record, particularly several related by Baron Larrey in his History of the Campaigns, and by Serres in his late work are strongly corroborative of the accuracy of the function assigned to this organ. Melancholy is another term in general use, and in its common acceptation is said to denote morbid activity of the organ of cautiousness, sometimes modified by that of conscientiousness, as when the patient believes himself to have committed crimes, and done actions which were calculated to excite remorse; sometimes, by th

of veneration and hope, as in the case of religious melancholy. "Folie raisonnante," it is affirmed, denotes either a natural state of the organs of intellectual faculties, while those of the propensities or sentiments are diseased, or, an increased energy of the same organs of intellect from morbid excitement. The leading characteristics of these cases are, that the patient reasons justly and often with great acuteness and logical accuracy, but his data are false; thus, during disease, a manifesting talent, sometimes general, sometimes partial, in a degree which is quite unnatural to him in a state of health, and which ceases with the disease. Rush speaks of the reasoning powers, and the talent for mechanics manifesting themselves in a most extraordinary degree during a paroxysm of insanity. Dr. Perfect, in his Annals, mentions having seen similar cases. He particularizes an uneducated girl, employed in manual labour, who, during the paroxysm, expressed herself in beautiful verse. Pinel speaks of a man who, during the paroxysm, possessed uncommon power of mind, and discoursed with infinite ease and judgment on the important events of the day, and those of the revolution at that time at its height.

Injuries of the head, as well as fevers, and other acute diseases also, are well known sometimes entirely to change a person's natural disposition, although the intellect remains as powerful as before. Rush says that some have shown a degree of honour and integrity during and after disease, to which they were formerly strangers; while others have lost their usual habit of veracity, their verbal memory, or their sweetness of temper, by the occurrence of acute diseases, although their intellect was not impaired. Such facts the phrenologists affirm to be inexplicable, except on the supposition of a plurality of organs. In the next place, when we witness the gradual and successive developement of the different powers of the infant mind, taking place exactly in the order in which the wants and situation of the individual seem to require them, and when we know that the faculties, which are essential for observation, arrive at maturity long before the age of manhood, while the reasoning powers may be said to be only then beginning to appear in their proper state, we are again embarrassed by the notion of a single organ; for a general organ cannot be both *deficient* and *sufficient* at the same moment. Farther, on looking around us we perceive at a glance the greatest differences in the dispositions and mental capacities of different individuals even from the most tender to the most advanced age, among the learned and intelligent as well as among the illiterate and stupid—one is naturally of an open and generous nature,

another shy, timid, and suspicious—one is fearful of attracting that notice in which another delights, and for which he pants—one shows a great talent for music, another for drawing, modelling, or calculating—one easily repeats long passages which he may have heard or read, another can never master a line, however willing—one is quick but superficial, skimming over the surface of things; another is slow, but profound, and fond of abstract reasoning—one manifests great genius for some particular pursuit, in which he easily excels, although his genius is thwarted or discouraged by the mistaken kindness or prejudice of ignorant and bigoted parents or preceptors; and at last, when free from restraint, it becomes the ruling passion of his soul—another, aided by all the power of riches, and the best masters which the most affectionate parents can procure, nevertheless fails in arriving even at mediocrity. All these cases are admitted to exist, but by philosophers they have generally been attributed to the effect of external circumstances, as education, &c. but we believe, without sufficient reason; for we observe every gradation of intellectual capacity, from the lowest pitch of idiocy up to the genius of a Bacon, and that often in circumstances exactly similar. In the case of manifest idiocy no one disputes that the cause is organic. Tracing, then, one degree of mental endowment after another, from the lowest up to the highest, at what point does or can the cause of it cease to be organic? and if it be organic, how can one organ be so powerful in executing some of the mental acts, and so feeble in manifesting others at the same stage of life, and in the same external circumstances? These facts and the production of talent or exaltation of intellectual energy by disease are sufficient to show that genius and dispositions must be born with us, before they can be called into action by external circumstances, and consequently the cause on which they depend must belong to the body.

It must be admitted, that these and similar facts are extremely difficult of explanation, except on the phrenological principle of plurality of faculties and organs, and we had almost said, that some of them, such as the cases of erotomania, religious melancholy, "*folie raisonnante*," afford at least strong probability of the correctness of the division of the faculties, as presented by Drs. Gall and Spurzheim. At all events the occurrence of partial idiocy and partial insanity, the gradual and successive developement of the different faculties as the child advances from infancy to manhood, the developement of certain kinds of talent by disease, and which disappear with the disease, and the change of disposition produced by injuries and other morbid affections

of the brain, appear to us amply sufficient to prove that the fundamental principle of each particular mental faculty depending for its due operation on the proper constitution and developement of the particular organ of that faculty, is in strict conformity with many of the phenomena of mind as observed in the states of health and of disease, and is therefore deserving of the most serious examination and refutation previous to its rejection.

Considerations similar to the foregoing have long since induced many philosophers strenuously to maintain the impossibility of all the faculties operating by a single organ, and the existence of several independent powers of the mind manifested by an equal number of independent organs. Their conclusions were supported by the same kind of facts and observations, which led many physiologists from an early period to contend for the independent existence of two kinds of nervous fibres in certain nerves, although enclosed in the same sheath, and so closely interwoven as to set at defiance the most patient efforts of the anatomist, who attempted to distinguish them by dissection. Sensation was sometimes found to remain in a palsied limb, when the power of voluntary motion was lost, and *vice versa*. The same fibre could not, they said, be both sound and diseased at the same moment; and therefore, although anatomy could not demonstrate the distinction, yet facts having occurred which precluded the possibility of a single nerve being in opposite states at the same time, they were in a manner forced to admit the existence of two kinds of fibres. The correctness of the conclusion has lately been successfully demonstrated by the experiments of Mr. Charles Bell, in London, and of Magendie in Paris, to which we alluded in our last number. The latter gentleman appears to have conducted his investigations in ignorance of the discovery of Mr. Bell, so that both having arrived at nearly the same results, more confidence can be placed in the accuracy of their experiments. This fact of two kinds of nerves running undistinguishably in a common sheath, although executing separate functions, ought to make us pause before denying the possibility of the division of the brain into several organs, on the ground that anatomy does not reveal the existence of any boundary or line of demarcation between them. We mention this here, because some have laid considerable stress on it as an objection to phrenology.

It appears, then, to be more philosophical and more in unison with the phenomenon of mind, as observed both in health and in disease, to hold that the mind is possessed of a number of primitive and distinct powers or faculties, depend-

ing for their operation on the healthy condition of a corresponding number of organs, of which the brain appears to be a congeries; than to hold that the mind is merely a general power capable of being directed as external circumstances require, and manifesting all its powers by the medium of a single organ.

The accuracy of the facts and observations made by Drs. Gall and Spurzheim must, however, be refuted or confirmed by experience alone, and we have pursued this line of argument merely to show that their mode of inquiry is not only reasonable, but highly philosophical and worthy of attention—that if the accuracy of their observations is confirmed by those of future inquirers, it will advance the philosophy of mind with a certainty and success far greater than have hitherto attended the efforts of its most devoted cultivators. Certainly there appears little deserving of ridicule or contempt in such views of this highly important subject. We wish therefore to excite the spirit of inquiry, that the foundation and successive additions to the new science may be carefully examined, and that their correspondence or disagreement with nature may be ascertained and made known before we definitively either adopt or reject it.

It was the philosophic character, and uniform consistency of the new doctrines, and their apparent conformity to nature, which led the author of the work before us, as well as Mr. Abernethy, to regard them as probable, highly important, and well worthy of the notice of medical inquirers. The author before us appears to be a person of very considerable talent, and he expressly mentions that he is not yet a convert to the truth of phrenology, not having made observations so as to qualify himself for deciding upon the accuracy of the facts acted upon by the phrenologists. He states that he came to the examination of the subject with a mind prejudiced against it, as a thing in itself absurd, and of no consequence even if true. When, therefore, he declares himself to have been much surprised and interested in discovering a new and apparently sound system of the philosophy of mind, where he expected to find only a collection of visionary and absurd speculations; when the powerful mind of an Abernethy believes the new system to be that of the true philosophy of mind, merely from an examination of the ground work, and a consequent perception of its consistency and harmony with Nature, we cannot possibly believe that such doctrines can be so very absurd and heterodox as they have sometimes been represented. Mr. Abernethy, in an especial manner, recommends them to the attention of the

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medical profession, as probable in themselves, and teeming with the most important results. Our author, in his preface, says, that he was one of the "many who treated the doctrines of phrenology with disregard, if not with contempt and derision. His opposition did not proceed from conviction arising from any examination, but rather from an ignorance of what they truly were, and a general impression of their being absurd, heterodox, and irreconcilable to the principles of true philosophy."

Some articles in favour of phrenology, which appeared in the New Edinburgh Review, excited his attention, and induced him to examine the standard works on phrenology. In the course of this inquiry, it appeared to him that the prevailing opposition to the new doctrines was at least as much owing to misapprehension of their importance as to any doubt of their truth. He therefore conceived that—

"If it could be shown that this system (of philosophy) is a reasonable one, and that it is conformable to analogy, and to the order of nature in other instances—that it accounts for the phenomena in a perspicuous and beautiful manner—that every part of it tends to some useful end, and that the whole is well connected and consistent with itself; such a demonstration, could it be accomplished, would afford a kind of internal evidence of the truth of the system, which would go far to remove the *aversion*, with which it seems at present to be regarded by many of the most intelligent and scientific in this country," and "the following pages contain the substance of an attempt to elucidate the subject in this way."

In another place (p. 46) he remarks—

"I am sensible I have not treated the subject in the manner a phrenologist would have done. Taking his stand upon the high ground of facts, and firm from the conviction arising from experience, he will probably feel no addition to his faith from any arguments drawn from other sources, and may regard as needless any attempts to support the system by probable reasoning, or what he may consider fanciful and wire-drawn analogies. But there may be minds so constituted as to be affected by such arguments and analogies, and which require to be invited to the study of the facts by such means."

In this observation we are inclined to agree with our author, and anxious to excite inquiry and a candid examination, we can recommend his "Observations" to the attention of those who, aware of the value of truth from whatever quarter it comes, only require a rational motive for proceeding to the investigation. With the same view, we have taken some pains to show that the mode of inquiry now held out to us is both rational and promising, and that we may fol-

low it with less hesitation, seeing that those hitherto in use have availed us so little. Had the author joined the testimony of observation and experience to that derived from reasoning, so as to give a decided opinion from self-conviction of the truth of the new doctrines, no doubt he would have produced a deeper impression. But, even as they are, his "Observations" along with Mr. Abernethy's "Reflections" are valuable as testimonies of the true nature and character of a system so much misrepresented. From a decided convert the public would expect admiration of doctrines which he considered as founded in nature, but from one who still doubted, no such thing could be expected; and yet he, even in doubt, could not refrain from adding his tribute to the beauty, harmony, and consistency, which characterize the whole.

Our author first discusses the probability of the brain being an assemblage of different organs, each having for its function the operations of an individual faculty. He says—

"If different parts of the brain are destined to different purposes, where is the absurdity of supposing, that certain separate portions of the brain are more intimately connected with, and more closely subservient to, different individual functions of the mind, than any other part? If this be so, it may appear to us a very curious and wonderful provision; but it is no more absurd or inconsistent with reason, than that different organs are appropriated to the use of the different senses—that the eye is connected with, and subservient to, the sense of vision, the ear to that of hearing, and the tongue to that of taste. The only difference is, that in the one case the organs are more open to observation, their configuration is more mechanical, and more obvious to our gross and imperfect powers of observing—but in the principle itself, that the different powers may have different portions of the brain assigned to them, connected with and subservient to them, and by means of which they act and manifest themselves, there is no absurdity whatever. *It may perhaps not be true—that is a different matter, and must be decided by observation and experience; but it is quite conformable to reason and analogy to say, that it may be so.*" 8.

He then proceeds to discuss the nature of the powers of the mind to which the different organs are respectively subservient, and the situation of the organs as given by Drs. Gall and Spurzheim. In looking over the list of faculties in order to try if he could reconcile it to reason and analogy, he could observe no order or connexion between them.

"The whole presented to me a rude appearance, quite different, as I then thought, from what is commonly found in nature. After a more attentive consideration, however, light began to dawn upon me; and beginning to consider the faculties in a certain way, and to

group them after a certain order, the whole gradually formed themselves before me into a system of surprising symmetry, and, like the disjointed parts of an anamorphosis when seen from the proper point of view, collecting themselves under one elegant design, delighted me with the appearance of that very order and beauty which I would before-hand have expected to find in them."

He subsequently examines the situation and functions of each organ individually, and adds some good remarks on the effects of each on the general character, and in different states of society, and he thinks the probability of the localities being correctly marked, is increased from the consideration of the intimate connexion existing between those which mutually require the assistance of each other. He is also disposed to admit the existence of the number of faculties discovered, seeing that all appear necessary for the explanation of the phenomena. In the "peculiar positions that are assigned to them (the organs) in this system, there are circumstances of connexion and mutual relation to which we could hardly have attended, and which seem to surpass any effort of mere human ingenuity."

The harmonious junction of the organs, the beautiful adaptation of the faculties to each other and to the phenomena of mind as observable in every state in which it exists, are, he says, far too remarkable, and the coincidences are far too numerous and exact, to have occurred by chance.

"As soon would a number of letters shaken out of Swift's laputan machine fall of themselves into the order of a scientific treatise, as that the names of thirty-three faculties, put down at random, should compose a complete and well combined scheme of the human mind, such as this appears actually to be. The inference is, I think, irresistible, either that the scheme which appears so well arranged has been invented by the ingenuity of Drs. Gall and Spurzheim; or, if they actually proceeded in the manner in which they tell us, and formed it piecemeal by a gradual and patient examination of facts, that the harmony and systematic junction of these scattered members forms a very strong presumption (to say no more) in favour of the accuracy of their separate observations, and of the system being truly founded in nature."

The system is so different from any formerly stated to the world, that he thinks it impossible it should ever have occurred to the mind of any individual in any other way than that in which it did occur to Drs. Gall and Spurzheim. And that it did occur to them in the manner alluded to is proved by the early publications and plates including comparatively few of the thirty-three faculties now given. The discovery of the connexion of a few qualities of the mind with particular portions of the brain could never lead the founders of the

science to suspect that in reality this was the beginning of the discovery of the true philosophy of mind, a philosophy which could not be overturned like preceding theories, because founded on facts in nature, instead of being the offspring of an ingenious hypothesis. Accordingly it seems only to have been after ascertaining the existence of the greater number of the present list of faculties, that the veil appeared to withdraw itself, and a system of philosophy to occupy the place of what appeared before unconnected, though curious and interesting facts.

Our author observes, in addition, that—

“ Had Drs. Gall and Spurzheim sat down with the purpose of constructing a system from their own imagination, it is next to morally impossible that they could have contrived one which harmonized so completely with itself, and with the actual state of the human faculties, and the uses to which these faculties are subservient. This is a problem which has puzzled the most eminent philosophers of ancient and modern times ; and all attempts to solve it have hitherto been fruitless, so as almost to entitle us to conclude that its accomplishment is beyond the reach of human ingenuity. If, then, these gentlemen had actually succeeded in inventing a system like this, which affords a key to the mental constitution of man, and a facility of accounting for the diversities of human intellect, and human character, far surpassing any other system that ever appeared—supposing it to be, as all former systems have been, entirely hypothetical—it would entitle the authors of it to rank as philosophers along with the highest names which have ever adorned the annals of the world.”

This our readers will think would be strong language even from a convert ; but coming from one who has only a half acquaintance with phrenology, not having observed the facts on which it is alleged to rest, and who from his own statement came to the inquiry with his mind prepossessed against it, what are we to think ? surely there must be a greater air of probability about the system when taken as a whole, than one would be apt to suppose from the disjointed statements and anecdotes with which the public have been long entertained. The author before us is clearly of this opinion, since he has published for the sake of stimulating to farther inquiry.

“ I am not aware,” says he, “ that any such connected view of this system has been given as the above, or that the mutual relation, and dependence of its different parts have been brought forward exactly in the light in which I have endeavoured to place them. The argument may not strike every one as strongly, but to me I own it appears to have considerable weight. It goes, at least, the length of inclining me to examine the facts in which the system is said to be

founded, and of removing any positive dislike to it, or hardness of believing it on reasonable evidence."

Writing merely to excite inquiry into the truth of a system which he esteems highly important and interesting to mankind, by proving its reasonableness and conformity with whatever is ascertained to be fact in the science of mind, our author has confined himself to arguments drawn from the state of the faculties during health alone. We have extended the argument to the state of the mind during disease, believing that if the truth is discovered, it will be found consistent with the phenomena of mind in every condition, whether of health or of disease. And for the same reason of wishing to excite inquiry, and of not vouching for the truth of the facts from his own experience, the author does not enter upon any of the objections which have been made against them. Had he been either a decided believer, or a decided opponent, he never could have passed them over in silence. This article, intended for the introduction of the subject to the notice of our readers, has already extended to too great a length to admit of our examining the objections in detail. Generally speaking, none of them appear to be opposed to the principles of the science, but all to hinge, more or less, on the difficulties of the inquiry.

Quarterly Periscope
OF
PRACTICAL MEDICINE;

BEING THE
Spirit of the Public Journals,
FOREIGN AND DOMESTIC.

Paucis libris immorari et innutriti oportet, si velis aliquid trahere, quod in animo fideliter hæreat. SENECA.

*Duo vitia vitanda sunt in cognitionis et scientiæ studio. ***** Alterum est vitium, quod quidam nimis magnam operam conferunt in res obscuras atque difficiles, easdemque non necessarias. CICERO.*

EXTRA LIMITES.*

On the Treatment of Fractures of the Lower Extremity. By
J. AMESBURY, of the Royal College of Surgeons, London.†

THE author states that it is not his intention to give a detailed account of the treatment of fractures of the leg and thigh at present, but merely to throw out a few observations, which he has found useful in his own practice.

He goes on to enumerate some of the principal plans of treatment that have hitherto been adopted by different practitioners; and conceives that the employment of any one of them is attended with disadvantages to the patient, which materially militate against its use; and then rapidly proceeds to the consideration of the causes of dis-

* The great number and length of our analytical Reviews this quarter has left us no room for our usual Quarterly Periscope; nevertheless we have given an Extra-limites Periscope, or Analytical Review of an important paper on fractures, by Mr. Amesbury, at our own private expense. We have also to state, that the number of applications which we have had for the insertion of trifling, unimportant, or self-interested papers, in our Extra-Limites, has determined us to fill up that department, in future, with *extra analyses*, as on the present occasion—a circumstance that will save us much tedious private correspondence, for which we have not leisure, and render the Journal uniform and homogeneous.

A few of our correspondents, from whom we received some good papers, must take this as an apology for not complying with their wishes.

† See Quarterly Journal of Foreign Medicine, No. XV.

placement. In these, he thinks, the bones themselves in no way participate. Among these causes the action of the muscles is considered the principal. Every other he conceives to be secondary or accidental. The action which the muscles exert upon the broken bones is not looked upon as voluntary, but as altogether depending upon their tonic power. This kind of contraction is much increased by every thing that irritates them; and as the fractured ends of the bones, when once displaced, oppose their ragged edges to the inflamed and tender bellies of the muscles, they must be regarded as a powerful mechanical stimulus, which occasions the muscles to contract more forcibly, and increase the displacement and all its attendant evils. From this it would appear that one grand principle in the treatment of fractures is, to place the bones as early as possible in a natural position, and a second is, to keep them from moving and injuring the soft parts.

With due deference to his predecessors, the author conceives every man has a right to think for himself; and from his reasoning, it might be inferred, that no one, however celebrated he may be, is to be considered culpable for not giving the best plans of treatment for the disease or accident upon which he writes. The surgeon does his duty as an author, both to his brethren and the public, if he lays before them the best plans he is acquainted with, or such as he conscientiously believes to be correct. If any one points out a mode of treatment, which, on fair examination, shall be found preferable to those previously adopted, he confers an obligation on every member of society. He advances the profession one step nearer to perfection, and the honour due to him is not to be taken away by any thing his successors may bring forward. A complex being is not to be viewed at a single glance. Many parts of our profession require for their developement the talents of many ages.

Wishing to add something to the general stock, the author proceeds "to offer a few observations, which may tend to throw some light on the mechanical treatment of injuries, of so much interest to the patient as well as to the surgeon."

Speaking of the straight position in fractures of the thigh, he says:—"To judge correctly of the proper position of the limb, in a case of fracture, we must take into consideration the natural form of the fractured parts; and, also, those powers which tend to displace the bone when broken. What then, for instance, is the natural form of the femur? not straight, as the practice of placing the limb in the straight position would indicate, but it forms a segment of a large circle, whose convexity is placed before, and concavity behind. The points of support, therefore, when this bone is placed upon a plane, with its concavity towards it, are at the ends; and the effect of fracture through its middle, would be to divide the segment of a circle, which the thigh-bone forms, into two smaller segments; and the middle of the bone being unsupported would reach the plane; and the lower edges of the fractured ends will be seen exposed, and ready to prick and lacerate the surrounding textures."

This is, we think, the fairest view that can be given of this prac-

tice. It supposes the bone to be uncovered by the soft parts, and merely broken through the middle as it lies upon a plane ; and it shows that if the muscles were perfectly quiescent in a case of fractured thigh, the practice of placing the limb in the straight position, is not borne out by the anatomy of the parts, when the fracture is through any part that might become thus displaced by the simple want of continuity, independent of the action of the muscles; and it is an argument that goes to prove, that the middle of the bone ought to be supported under all positions and motions of the limb.

We now pass on to the consideration of displacement in fractures of the thigh, as it is observed to be influenced by the action of the muscles, when the limb is placed in the straight position; and this is greatly modified by the degree of laceration of the soft parts "at the site of fracture ; the situation of the fracture ; its direction, &c.

" When the thigh is amputated high up, the flexors often act so powerfully as to place the stump, for a time, nearly at right angles with the pelvis, hence it must be evident, that when there is a solution of continuity in the bone, the muscles which tend most to displace the upper fragment, are the *iliacus internus* and *psaos magnus*; and the effect of their contraction is more or less powerful in raising the upper part, in proportion to the distance of the fracture from the point of their insertion; or the length of the lever by which they are resisted. But what muscles act most upon the lower portion, so as to produce displacement in the transverse direction ? It will be recollected, that the fixed points for the action of the *gastrocnemius* and *popliteus* are, in the natural state, principally the condyles of the femur ; and that their contraction assists in the extension of the foot and flexion of the leg. But fixed points, in anatomical language, are considered as those which oppose the greatest resistance to the action of muscles, hence it will appear that those points, which in the natural state are the most fixed, may after the accident become the most moveable. If a muscle were attached to two bodies, which oppose an equal degree of resistance to a contraction of its fibres, these two bodies must move with an equal degree of velocity towards its centre ; but if one of these bodies be more fixed, either by weight or length of lever, than the other, the lighter body must move towards the heavier, or more resisting, in whatever manner the resistance may be produced. From this it will appear, that when a fractured thigh is placed in the extended position upon the heel, the fixed points for the action of the *gastrocnemius* and *popliteus* are, *pro tempore*, no longer in the condyles, but at the points of their insertion ; therefore, the contraction of these muscles tends to carry the lower fragment in a direction directly opposite to that of the upper ; and this with a degree of force proportionate to the distance of the fracture from the lower end of the bone. If the solution of continuity be across the upper third, the transverse displacement, as far as the muscles are concerned, is principally produced by the action of the *iliacus internus* and *psaos magnus*; and if near or through the condyles, by that of the *gastrocnemius* and *popliteus* :—the former muscles move the part to

which, they are attached upward and forward; and the latter downward and backward; thus, the upper portion is bent upon the pelvis; and the lower is bent upon the leg. The straight position puts these muscles into a state of tension, and consequently increases their power over the unresisting fragments. The transverse displacement being once produced, the extensors and long flexors of the leg are goaded into action; and, assisted by the triceps adductor femoris, and, if the fracture is high up, by the pectinæus, they contract forcibly, and draw up the lower portion, which glides beneath the upper—sometimes the distance of several inches, and, at last, comes in contact with it at a considerable angle. From these causes arise pain, spasm, inflammation, abscess, deformity, and lameness."

"Other muscles tend to produce displacement, according to the situation of the fracture, but these I need not mention, as my object was merely to show those muscles which principally produce displacement in the transverse direction, a displacement which must necessarily precede shortening of the limb."

We are not told in what way the action of the muscles affect the fracture, when the soft parts are much torn; or when the bone is broken in any particular direction. The cause of this omission may be looked for in the onset, where the author states it is not his intention to enter into a detail at present; we must, therefore, wait the complete developement of his notions upon this subject, before we venture to make our own observations upon them.

"Mr. Pott had the honour of pointing out the advantages we gain by bending the limb, and consequently relaxing the muscles, which tend most to disturb the fracture; and to forward his views upon this subject, he laid the limb upon the side in the half bent position. In this posture, the limb may be placed at any angle the case may require; and forms, from the trochanter to the foot, a line straight enough to lie sufficiently smooth upon a plane; provided the trunk, also, is placed upon the side; and, if the patient could maintain this position during the period of cure, the limb may be straight and perfect; but he soon becomes tired and turns upon his back. By this rotatory motion, the trunk carries with it the upper fragment of the fracture, while the lower fragment and the leg continue as they were placed; and hence arises eversion of the foot:—a species of deformity which, in this kind of treatment, is with difficulty avoided, and is every day occurring."

From what we have here extracted, we perceive that the author approves of Mr. Pott's plan of relaxing the muscles, though he does not agree with him in the practice of placing the limb upon the side, according to the manner Mr. Pott advised. But it does not appear that the author wishes to argue against the practice of placing the limb either on the heel or on the side, but against confining it to either of those positions; for he says, (p. 442)

"But whoever attends strictly to the treatment of these injuries will find, that any one position long-continued is extremely irksome to the patient, and in the young and irritable can scarcely be main-

tained." And again, (in p. 443,) "I would not contend, however, for the practice of placing the limb upon the heel or upon the side, but for that practice which relaxes the muscles; and allows the patient himself to place it, according to his feelings, upon one or the other; and to alter it at pleasure, without any danger of disturbing the coaptation of the fractured parts."

He believes that the same objections arise in the treatment of fractures of the leg when placed upon the side, as in fractures of the thigh, though not so forcibly.

"When (p. 442) both bones (of the leg) are fractured, and the limb is placed upon the heel, we daily see great difficulty experienced in keeping the fragments in apt and proper contact. The pads and pillows made use of cannot be with sufficient nicety adjusted to maintain the limb in that position, which a favourable result requires. The surgeon, therefore, at every visit, finds something to attend to;—the heel is raised too high, and the bones, consequently, bowed backwards; or it is sunk too low, and the fracture yields in an opposite direction. He is frequently obliged to replace his pads, pillows, brickbats, and other contrivances, made use of to supply the deficiency of his splints; and as frequently produces more or less motion between the fractured ends. This motion much retards the union, and is one of those causes which prevent it altogether."

Upon the cause of eversion he says—

"That the motion of the body in the direction I have mentioned is the cause of the eversion of the foot, will, I think, readily appear, by placing a person on his back, upon a plane, with the leg semi-flexed and laid upon the side. Unless the limb be very much bent, the thigh and upper part of the leg cannot come in contact with the plane upon which the person lies. The heel acting as a lever, keeps the foot everted, and thus, the foot and lower part of the leg, forming points of resistance to the action of the adductors of the thigh, maintain the limb in a twisted position. This position soon becomes painful if the limb is sound; but if a fracture exists, the patient is quickly relieved from the pain thus occasioned, by the rotatory motion which takes place between the fractured ends."

We pass from this hasty view relative to the positions of the limb, to the consideration of the mechanical powers hitherto made use of to keep the bones quiet and in apt and proper contact.

"Having cursorily pointed out some of the difficulties we have to encounter in the treatment of these accidents, let us now inquire if there be any means by which we can avoid them. But before we enter upon this subject, let us stay for a moment and consider wherein the means in common use fail to effect the desired end. The mechanical powers now commonly adopted, to fix the fractured parts, are either the short or long splints, the fracture-box, or doubly-inclined plane."

"In order to show how far the short splints produce the effect for which they were intended, I made the following experiment:—I di-

vided a stick, half an inch in diameter and two feet long, into two equal parts, and one of these I again divided into two parts of equal length. The two shorter pieces I intended to represent the two fragments of a fractured thigh; and the longer, the leg in a natural state. I then connected, by means of a hinge-joint, one end of the longer piece with one end of one of the shorter; and, having brought one end of each of the shorter pieces into contact, as they lay in a straight line, I surrounded the shorter pieces, their whole length, with muscular fibre, one inch and a half in diameter, placed in the longitudinal direction, and secured with small twine. Over the muscular fibre, I laid slips of deal, in the usual way of putting up a fractured thigh with short splints, and confined them with tapes moderately tight. Having laid the whole upon a plain surface, I rotated the longer piece, uncovered by muscular fibre, and found, as I expected, that the motion was lost between the shorter pieces; and that no motion was given to the upper of these, except what was communicated to it through the medium of the muscular fibre; and that the centre of every kind of motion, which did not loose itself in the hinge-joint, was placed between the approximated ends of the shorter pieces. Hence it appears, that when the thigh is broken and put up with short splints—by which I mean splints that extend from the pelvis to the knee—motion given to either end of the limb is lost in the site of fracture.”

From this experiment, the author is induced to believe, that the short splints would not confine the fractured parts, however closely they may be applied; and, he thinks, if they are placed very tight upon the limb, they may force a portion of the surrounding textures between the broken ends of the bone; he, therefore, concludes, that these splints “fail to accomplish the purposes for which they were constructed:—they fail to maintain the proper coaptation of the fractured parts, and to prevent any motion between them.”

“What I have here stated with regard to the short splints for fractures of the thigh, will also apply, in some measure, to those in common use for fractures of the leg. They do not provide against motion, which impetus given to the limb produces in the fracture; there is nothing in their construction to support the heel and sole of the foot; parts which, in the treatment of these accidents, deserve our serious attention; nor, unless they are kept very tight upon the limb is the lever above the knee sufficiently long to guard against eversion.

“They are simple, however, and easy of application; but, when we have an important object to accomplish; when the limbs or the lives of our fellow-creatures are in danger, utility and efficacy should be borne in mind. Is it no small matter to suffer the pain and inconvenience arising from these injuries, and afterward to be deformed and lamed for the remainder of our existence? It has been said that we should bring down our mechanical contrivances to the comprehension of the duller capacity. This is a good rule, and should be, as far as possible, adhered to: for simplicity, combined with utility, is excellency in these things. But if I were called upon

to define what I mean by the term simplicity, as applied to a piece of machinery, I should say, it signifies that which answers the same intentions by the fewest means ; or that which has in it all that is useful, and nothing superfluous ; and I cannot help thinking that surgery stands in need of this kind of simplicity in the construction of its instruments.

“ If we consider the motions of the limb in the natural state, we shall find, that the leg is passive to the motions of the foot ; the thigh to the motions of the leg ; and the pelvis to the motions of the thigh ; hence we should infer, that if the foot and thigh were fixed by a continuity of splint, the leg must of necessity become fixed also ; and if the foot, leg, and pelvis could be fixed, so that no motion could take place in the one without passing over to the other, the thigh also would become a fixture.

“ To illustrate this point, and to see what we gain by fixing the whole limb in the treatment of fractures, I covered, not only the shorter pieces of the stick above mentioned, but also the longer, with muscular fibre, while they remained in the same relative position as described in the last experiment ; and having fixed a cross bar to the lower end of the longer portion, I applied slips of splint two feet long—the length of the three pieces—upon the muscular fibre, and confined them to this and to the cross-bar with small twine. The whole was now placed upon a plane, and rotated and moved in different directions, by applying the hand to the cross-bar ; and it was found that any motion given to the cross-bar, which was intended to represent a foot-board, was not felt between the approximated ends of the shorter pieces, as in the first experiment, but was propagated over them, and lost at the upper end of the splints—a situation intended to answer to the hip-joint in a case of fractured thigh.

“ This experiment, rough as it is, is sufficient to show that when the thigh, leg, and foot are fixed, by any inelastic body, continued from the one to the other, motion between the fractured ends of the thigh-bone, from an impetus given to the limb below the side of fracture, is effectually prevented.

“ It will be seen, from what was stated in the first experiment, that the advantages here gained arose from fixing the splints to the cross-bar ; hence it must be evident, that any motion given to the upper of the shorter pieces, which was in no way connected to the splints, by applying the fingers to its projecting end, would still have had its centre between the lower end of this piece, and that with which it came in contact. This is precisely what would occur in a fractured thigh, put up as the last experiment would indicate if the pelvis could not move upon the femur ; and if it were unconnected to the splints, which fix the knee and ankle. But it will be recollected that the pelvis has free motion upon the thigh in every direction, therefore it is not necessary that the upper fragment of the fracture should move, if the pelvis moves.

“ Supposing the lower part of the limb not under the command of the patient, those movements of the pelvis which carry it out of

line with the thigh bone, must necessarily affect the fracture; but if the whole limb is fixed to the hip-joint, and the fracture is not so high up as to prevent the splints from holding the upper fragment firmly, the patient is able to direct its motions upon a plane whether the limb be bent or straight, and therefore can make it follow the movements of the pelvis, and consequently has it in his power to avoid the displacement which might otherwise ensue.

"But it will be seen that if the pelvis could be fixed upon the thigh, by a continuity of the same means that fix the foot and leg, motion given to either end of the limb would be still less likely to affect the fractured parts. Supposing the limb with the thigh-bone fractured put up as here suggested, motion given to the foot would not have its centre in the hip-joint, but would pass over it to the pelvis; and if given to the pelvis, it would not be felt in the site of fracture, but would be propagated along the splints to the foot, which, however, would not feel it, but in common with the leg and thigh; and as far as it regards the motions given to the limb from external causes, this would be the case whether there exists, between the pelvis and the foot, one fracture or a dozen. From this it would appear that any plan which would enable us to fix the pelvis upon the thigh, by the same means that fix the foot and leg, is in some respect desirable."

If we conduct our treatment of fractures upon the principles which the author has endeavoured to establish, he concludes, that we shall find no difficulty in the treatment of fractures of the leg; and that our treatment of fractures of the thigh will become comparatively easy.

In alluding to M. Desault and Mr. Pott's practice, the author conceives, that M. Desault employed the long splint, in fractures of the thigh, principally with a view to keep up extension in the straight position, and at a distance from the fractured bone; and that Mr. Pott placed the limb upon the side, in order to relax the muscles which tend most to displace the fracture; and, in this way, to prevent the necessity of applying an extending force.

From the inconveniences attending the straight position, and the bent in most fractures of the lower limb as pointed out by the author, when treated according to the common plans, we should infer that neither Desault nor Pott would have been inclined to follow the particular lines of practice, which they adopted, if they had been in possession of more effectual means to fix the fractured parts.

Speaking of the common modes of treatment, the author believes that the use of the fracture box and doubly-inclined plane, is attended with fewer disadvantages than any other means he has hitherto seen applied for fractures of the thigh.

"Supposing the limb (448) to be placed in the erect position, the fractured ends of the bone would be drawn in opposite directions; the upper forward, by the action of the flexors of the thigh; the lower backward, by the action of the gastrocnemius and popliteus; therefore, by placing the limb upon a doubly-inclined plane, we gain

three points of evident advantage:—we weaken and resist the action of those muscles which tend to displace the lower fragment ; and, by bringing up the limb upon the pelvis, we relax, and consequently weaken the action of the *iliacus internus* and *psoas magnus* ; and place the patient in a position most easily maintained.

“ But there are some objections to the use of these instruments, which must not be passed over in silence.

“ The fracture-box and doubly-inclined plane are mounted upon wide frames, which prevent them from sinking into the bed upon which the patient lies. It is not so however with the nates. These and the trunk by their gravity cause the bed to yield, and in proportion as this gives way, if the instrument is placed so as to support the back of the thigh at all, the upper part of the limb is forced against its corresponding end; and thus the instrument tends to assist the *iliacus internus* and *psoas magnus* in bending the upper portion upon the pelvis, while the lower portion and the leg continue as they were placed. The pressure thus produced frequently occasions pain, tumefaction, and sometimes abscess, at the upper and back part of the thigh ; and if the fracture is high up, the action of the *iliacus internus* and *psoas magnus*, assisted by the pressure of the instrument, is too often followed by great and permanent shortening of the limb, great deformity, and lameness. Again, even if no other mischief should arise when the patient uses the bed pan, the upper fragment, following the direction of the pelvis, is raised from the instrument, and motion is produced in the situation of the fracture. Are not these indications, which point out most clearly that any machine made use of for fractures of the leg and thigh, should be entirely passive to the motions of the limb ?”

Upon the subject of extension in fractures of the thigh, we have the following observations :—

“ It has been said that it is sometimes necessary to apply extension notwithstanding the limb is placed in the bent position. When this is required, I am disposed to believe, that the extending means should be made to act upon the lower end of the bone, or as near to it as possible ; not however by applying a ligature round the limb, but by some means which would bring down the lower fragment, by acting upon a large portion of the thigh or back of the leg.

“ To this plan I have not yet been able to discover any particular objection; and, therefore, think it preferable to extension in the straight position, to which the following may be started :—

“ First, its effects upon the natural curvature of the thigh bone, which ought to be maintained. Second, it increases the power of the muscles which tend to produce displacement in the transverse direction. Third, it acts upon two sets of ligaments before the fracture is effected. Fourth, the natural figure of the limb forming curved lines on the inner and outer sides, is unfavourable to the practice.”

These observations are so general, that it is impossible to say whether the author advises the extending means to be applied in all

cases of fracture of the femur upon the thigh itself, and upper part of the back of the leg; but we should think not, as we have seen him place a fractured neck of the thigh-bone in the straight position; and this being the case, it appears, from what we know of his plans of treatment, that the extending means must be made to act first upon the foot in fractures through the cervix.

After adverting to the advantages which accrue to the patient from raising the limb upon an inclined plane; when the inflammatory action is considerable, the author goes on to enumerate the following indications, which, from his own observations and experiments, he thinks should be attended to in the construction of any machine for fractures of the lower extremity.

"The instrument should—1st. Fix the whole limb so as to admit of no motion whose centre is not in the hip-joint, or between the pelvis and the back. 2d. It should maintain the fractured ends in a natural position, and in perfect coaptation. 3d. It should lie upon the limb with ease to the patient. 4th. It should enable the surgeon to place the limb at any angle the case may require. 5th. It should allow of extension and counter-extension when the limb is fixed in the bent position. 6th. It should be entirely passive to the motions of the limb, and should allow the patient to place it in any position most congenial to his feelings, either on the heel or on the side, and to alter this position at pleasure. 7th. It should enable the attendants to move the patient from place to place, without any danger of displacing the fractured ends. 8th. It should allow of being adapted to limbs of different lengths and different sizes. 9th. It should be applicable to fractures in any part of the limb, and of all kinds; whether simple, comminuted, or compound. 10th. It should be simple and easy of application. 11th. With all these advantages it should ensure to the patient a speedy recovery and a straight and perfect limb."

Mr. Amesbury has contrived a machine to answer these purposes, his own description of which we subjoin; and also his reasons for introducing into its composition each particular part.

"To fix the limb and allow it to be bent and fixed at different angles, a piece of beech slightly hollowed out, to receive the back of the thigh, thrown a little out of a straight line, to answer to the natural curvature of the thigh bone, and gradually narrowed towards the lower end, was connected by means of a hinge-joint, to another piece of beech, slightly excavated to receive the calf of the leg, and gradually narrowed towards the lower extremity, to answer to the natural form of the limb. From the situation for the calf to the inferior end this piece was made a little concave, simply to prevent the pad, upon which the limb is placed, from shifting its situation. Both of these pieces were cut out of one inch and quarter board; and that for the thigh was left one inch thick for two inches from its lower end, for the purpose of receiving, on each side, a brass-eyed screw; and that for the leg was left one inch thick, and the same width for six inches from its lower end. A bit of beech, a little longer

and wider than the foot, was cut out at one end, to receive the leg-piece at right angles. This was intended for a foot-board. It was one inch thick and one broad, where it lay in contact with the sides of the leg-board; and when they were placed at right angles, the receiving end of the foot-board, and the received part of the leg-piece, were bored transversely, so that they may be fastened together by means of a bit of wire. That part of the foot-board which lay upon the concave part of the beech intended for the leg, was a little rounded off at the edge nearest the lower end of the leg-piece, so as to give it a hinge-like motion in a direction from right angles over the lower end of the leg-piece.

"To fix the pieces of beech intended to support the leg and thigh, and to allow of their being placed and fixed at different angles, I had a thin rod of steel, connected at one end, by means of a hinge-joint, to a short pillar of brass, which was fixed by screws to the middle of the back part of the leg portion. To the other end of this rod was fixed, by means of a hinge-joint, a brass foot, about an inch and half long, and one-fourth of an inch thick, with a hole in its centre, a little narrower in the transverse than in the longitudinal direction; and another hole in its side, which traversed the one in the centre transversely. To the side of the brass foot was fixed a bit of brass with a spring, in the form of a flute key, and at that end of the key which answers to the part that stops the hole in a flute, was fixed a steel pin, which was made to pass into the hole in the side of the brass foot, and cross the hole in its centre. A narrow piece of brass, with six stays projecting from its surface, was fixed to the back of the thigh portion. Each of these stays was of the form and size of the hole in the centre of the brass foot, connected to the steel rod, and each had a hole in it transversely to the plate, upon which they were arranged, large enough to admit the pin made to traverse the hole in the side of the brass foot. They were placed at a distance sufficient to allow the thigh-piece to be fixed to that intended for the leg, at any degree of flexion, from straight to right angles.

"It will be seen that, by pressing the key, the pin attached to it, as above described, would be drawn out of the hole in the centre of the brass foot-piece, which could then be made to receive any one of the stays placed on the back of the thigh-piece; and once received, we have only to take the finger from the key, and the steel pin is forced, by the reaction of the spring, through the hole in the centre of the stay, and consequently, the two pieces of beech may be fixed at any angle the case may indicate.

"To prevent the effects of moisture upon the steel rod, it is advisable to have it coated with brass or tin, which may be easily done; but this is not required except for hospital practice.

"But it is proper that the instrument should be applicable to limbs of different lengths. The thigh and leg pieces must allow of being shortened more or less according to the length of the limb. To answer this purpose, as far as the leg-piece is concerned, a number of holes of one size should be bored in a line transversely to this piece at its lower end; and then we have only to draw out the

wire which fixes the foot-board to that intended for the leg, slide up the former upon the latter, and fix them where we please.

"The length of the thigh portion, however, is not so easily altered; but this may be done by a thin plate of brass the width of the thigh-piece, and five or six inches long, according to the size of the instrument. When hammered out to lie upon the hollow part of the thigh-piece, and turned off at its upper end, this plate had attached to it two thin plates or bars of steel of its own length, and about half an inch wide. As much of one end of each of the steel plates as was equal to the wood of the thigh-piece, was bent at right angles. They were then placed upon the back of the brass plate in the longitudinal direction, and the bent extremities united to it, just below its upper end; and within half an inch of its sides. Having now placed the brass plate upon the thigh-piece, and the steel plates or bars behind it, I had nothing to do but unite the plate to the bars of steel through two long mortises in the wood, in such a manner as would enable me to slide the brass plate up and down, or fix it upon the wood at pleasure. To fix the brass plate and to allow it to slide, two small screws, with square heads, were passed through two holes at the lower end of the brass plate, opposite the steel plates or bars. These screws were then passed through the mortises in the wood; and through two holes of their own size made in the steel plates; where they were fixed by female thumb-screws. By means of the female thumb-screws the brass plate could be fixed or made to slide upon the wood, so as to enable us to lengthen or shorten the instrument, according to the length of the femur; but this plate is not required except for fractures of the thigh and fractures, &c. of the leg, attended with high action.

"But legs are of different thicknesses as well as of different lengths; one man may have a larger calf or a longer heel than another, and these should engage our attention. To enable us to adopt the same instrument to different degrees of thickness in the calf or length in the heel, we may make use of a leather shoe, open from the toe with a wooden sole, suspended from the top of the foot-board by means of a strap and buckle. The strap should be fastened to the bottom of the wooden sole in a groove, and made to pass over the top of the foot-board, which should be furnished with a buckle near the end that comes in contact with the leg piece, in order to receive it. The strap should be let a little into the top of the foot-board, that it may not shift its situation. The sole of the shoe should be confined closely to the foot board by a strap and buckle passed round them. The same intention may be answered by making the sole of the shoe to slide in a groove in the foot-board, upon which it may be fastened by means of a thumb-screw. The leather of the shoe is intended to wrap over the instep, and to be confined upon it with straps or ribbons.

"This shoe is intended to answer three indications:—to raise the heel from the leg-piece, or lower it, as the case may require: to prevent any lateral or rotatory motion between the fractured ends of the bones; and to form an easy bed for the heel.

"The whole of what I have described, is required for fractures of the thigh ; and for fractures of the leg, attended with high inflammation ; but when the instrument is used for common simple fractures of the leg, as we usually see them, the brass plate may be dispensed with.

"Besides the parts I have mentioned, three common short splints are required for fractures of the thigh : one on the outer, another on the front, and another on the inner side of the thigh. The first should extend from the upper part of the great trochanter to the lower part of the outer condyle ; the second from the great trochanter to the patella ; the third should lie upon the triceps adductor femoris, and should extend from the pelvis to the lower part of the inner condyle. These, with the assistance of the thigh-piece, may be made gently and regularly to compress the muscles, and to prevent any straps or tapes, made use of to secure them, from injuring the soft parts. The splint placed upon the front of the limb answers another indication, that is, to resist the action of the flexors of the thigh.

"For fractures of the leg, three short splints are also required ; one on the outer, another on the inner side of the leg, running from the head of the tibia or condyles of the femur to the sole of the foot. These differ but little from common short splints for fractures of the leg. Each of them has a small hole at the lower extremity, which corresponds with one on the same side of the foot-board. They are a little narrower, and the holes for the ankles are made to answer to the situation of the malleoli, the one for the inner ankle being nearer the anterior edge of the splint than that for the outer. These splints steady the foot more perfectly, and enable the patient to lay the limb upon the side. The third splint, which is composed of deal, one half of which is split, is turned up a little at either end, and is intended to lie upon the front of the leg. This prevents the upper fragment of the fracture from being at all displaced by pressure on the calf, and preserves the integuments on the shin from the action of straps or tapes.

"I have had an instrument constructed in the manner above described, and have used it in a variety of cases, and have not yet been able to discover any thing material that militates against it. In confining the different splints upon the limb, I have made use of leather straps, armed with buckles in preference to tapes ; as the necessary degree of pressure can be better and more easily regulated with the former than the latter ; and as there is no danger of their giving way. In order to fix them to the instrument, or remove them at pleasure, I have usually had some studs put along the middle of the back of the instrument, and a strip of leather near each side, for the straps to pass under.

"Having described the different parts of this instrument, we now pass on to its application. This is modified by the state of the soft parts, and the situation of the fracture. The surgeon should bear in mind the principles of his science, and act up to them in every instance. If no particular angle is indicated, by the nature of the

case, the semiflexed position is most easy to the patient, both in fractures of the leg, and fractures of the thigh. Whether the fracture be in the leg, or in the thigh, the limb should be placed upon the instrument, as soon as possible after the accident, and this is the more necessary, in proportion as the displacement is great, or the inflammation high; but as long as the high irritation continues, it is not advisable to apply the short splints closely upon the fractured bone. We may indeed defer the application of the short splints to the fractured part, till the first irritation is got under, unless the bone cannot be kept in apposition from the irritability of the patient, or other causes.

"In a case of fractured leg, before the first irritation has subsided sufficiently for the application of the short splints, supposing no particular indication requires them to be immediately applied, the limb should be put up in the following manner:—The surgeon, having procured an instrument, should fit it to the sound limb. The hinge which connects the leg and thigh-pieces should be placed under the knee-joint, and the foot-board brought up close to the foot. He should then superintend the construction of a pad, made thickest at the part which is intended to lie under the small of the leg, and long enough to cover the leg and thigh-piece, upon which the limb is to be placed.* A tape should be placed transversely upon the back of the foot-board near its loose end, under a strip of leather, placed there to prevent the tape from slipping down to the end of the leg-piece. The ends of this tape should then be carried from the sides of the foot-board, through the corresponding brass eyes connected to the sides of the thigh-piece, and left hanging. The instrument being now properly adjusted, two assistants should raise the fractured limb, one the foot, and the other the upper fragment, while the surgeon places the instrument, properly padded, beneath it. The instrument being in a line with the limb, and the hinge under the knee, the assistant should be directed to lower the limb gradually upon it, and place the heel in the shoe. Then, having placed a splint upon the front of the thigh, and another on the inner side upon the triceps, two or three straps should be carried round the thigh upon the splints, so as to make very little pressure upon the limb. One of the straps, drawn rather closer than the others, should pass over the condyles upon the femur, to keep the knee from rising from the instrument, when the limb is moved. The only use of the short splints, placed upon the thigh, is to prevent the straps that fix the thigh upon the instrument from injuring the soft parts. The tape, made to cross the loose end of the foot-

* Mr. A. now uses a leather strap instead of a tape, as it supports the foot-board more steadily, and is more easily regulated. The strap is fixed to one of the brass eyes on one side of the thigh-piece; and the buckle to the other. In applying the instrument, the strap is carried from the side of the thigh-piece, round the toe of the foot-board, under the leather placed there to support it, and then along the opposite side of the instrument, where it is received by the buckle at the side of the thigh-piece.

board, should now be drawn as tight as is comfortable to the patient, and tied upon its back. The tape is intended to keep the foot-board close against the sole of the foot, which should be left extended a little beyond a right angle with the leg. The leather of the shoe should now be laid over the instep and toes, and secured as close as the patient can bear it with ease. The limb being thus put up, the foot of the instrument should be raised, and the patient left upon his back, with the limb upon the heel. In this state, leeches, cold lotions, &c. may be applied; the patient's bowels may be freely evacuated; he may have his bed made daily, &c. without any danger of disturbing the fracture, if care is taken not to turn the instrument to either side. When the inflammation and tumefaction have subsided, the surgeon should notice the bone particularly, to see whether the fragments continue in a line, and depress or raise the shoe upon the foot-board, as circumstances may require. The tape that supports the foot-board should now be gradually drawn sufficiently close to place the foot at right angles with the leg, taking care at the same time that the bones are not made to overlap, if the fracture is oblique. The short splints, properly padded, may now be applied to the leg, with the unsplit part of the front one upon the tibia, and confined moderately close with two or three circular straps. A tape should be passed through the small hole at the lower end of each of the side splints, and then through the corresponding hole in the foot-board. These tapes should be brought together on the back of the foot-board, and tied. The use of these tapes is to prevent the lower ends of the side splints from shifting when the patient moves the limb. The straps upon the thigh having been drawn a little closer, the patient may be furnished with a sling, which should be fixed so as to act upon *the* heel of the foot-board and lower end of the leg-piece*, and desired to get up and place his limb across a chair, or walk about at pleasure on crutches, with a *caution not to move the limb but by means of the sling*. The sling should not be taken off the instrument night nor day, during the period of cure, as it gives the patient perfect command over the lower part of the limb, and enables him to place it in any position he pleases.

"In all cases of fracture of the thigh, it is necessary to make use of the apparatus for lengthening the thigh-piece.

"The instrument, with the sliding plate attached to it, should be placed under the sound limb, and fitted to the leg and foot, as for fractures of the leg; and the thigh-piece should be regulated so as to reach from the bend of the knee to within half an inch of the tuberosity of the ischium. The pad should be made a little longer than the instrument, that it may fall a little over its upper end, where

* * It is of importance that this direction should be strictly attended to, for if the sling is fixed so as to move the foot-board, the motion will be communicated to the fracture, and a tardy union will be the consequence."

it should be fastened ; and should be thick enough at this part, when compressed, to fill up the space left between the instrument and the tuberosity of the ischium. The surgeon should superintend the making of this pad, for it is of importance in two respects. If the thigh part be nicely adapted to the length of the thigh, the instrument will tend to keep the broken bone the same length as the sound one, by its pressure against the tuberosity of the ischium, and upper part of the back of the leg ; and if its upper end be sufficiently protected, it will not inconvenience the patient by its pressure upon the soft parts.

“ When there is much contusion or inflammation of the soft parts, the instrument, properly adjusted to the length of the sound limb, should be applied in the following manner :—Two assistants should raise the limb from the bed, while the surgeon places the instrument beneath it. The limb being placed upon the instrument, the foot-board should be properly fixed with the tape, and the foot secured in the shoe, as described for fractures of the leg. A couple of straps should then be passed round the leg upon the instrument, and a bit of splint padded and placed upon the shin. The leg and foot being thus secured, and a long strap with a sliding pad attached to it, being previously carried between the steel bars and the brass plate, one assistant should keep the upper end of the instrument close against the back of the thigh, while the other, by extending from the knee, draws down the instrument, and with it the lower fragment, till the upper end of the instrument comes anterior to the tuberosity of the ischium, in the same manner as when it was placed upon the sound limb. The surgeon, having ascertained this point, and that the fractured ends of the bone are in apt and proper contact, the broad strap, placed at the upper end of the instrument, should now be made to cross upon the front of the thigh, pass round the pelvis, and buckle.

“ This strap keeps up the instrument against the back of the thigh, and serves to secure it to the pelvis, and therefore the instrument and lower part of the limb are made to follow those motions of the pelvis which tend to disturb the fracture.

“ The whole length of the thigh is left bare, except at its back part, and little or no impediment is given to the circulation. The limb thus put up should be left resting on the heel upon pillows, with the patient on his back. It is to be recollected that, if any particular indications require the limb to be secured more firmly, the short splint should be lightly applied.

“ As soon as the high action is sufficiently got under, which is usually in the course of two or three days, the short splints, properly padded, should be placed upon the limb and secured with three or four straps. The broad padded strap, previously passed round the thigh and the pelvis, should now be carried under the leathers, placed upon the back of the short splints, made to cross upon the outer of these splints ; and again to pass round the pelvis, and buckle. This strap keeps the upper ends of all the splints firmly upon the upper fragment, and serves to connect them with the pelvis.

"If the broken ends of the bone do not ride, and if the fracture be not so high up as to prevent the upper fragment from being held firmly by the splints, the patient may now be allowed to place his limb upon the side or upon the heel, and to alter the position at pleasure; not by means of a sling, as in fractures of the leg, but by placing his finger under one of the straps surrounding the lower end of the thigh, and at the same time taking care that the pelvis and the limb move together in the same direction. The limb, however, had better be allowed to lie principally upon the side with the toe and knee a little raised from the bed by means of pillows, if the bone is broken just below the trochanter minor, or if the fracture is oblique.

"During the cure, it is necessary that the surgeon should attend to two points particularly. *He must see that the instrument does not ride over the tuberosity of the ischium; he must take care that the patient does not move the limb by the exertion of its own muscles*, but by the assistance of his hand, or by the assistance of another person. The reason of these two directions will immediately appear. The riding of the instrument would indicate that the fractured ends of the bone overlap; and if the patient attempts to move the limb, by its own powers, he would incur the danger of displacing the upper fragment; for the muscles surrounding the fracture are not of a texture capable of opposing much resistance to lateral displacement, which their own contraction would tend materially to produce.

"If more extension and counter-extension be required than the instrument itself is capable of effecting, which I am disposed to believe will seldom be the case, the patient should be placed on his back diagonally upon the bed. Extension may then be made by a tape, which should be fastened to the brass eyes in the sides of the thigh-piece, thrown over a pulley at the foot of the bedstead, and made to suspend a weight sufficient for the purpose for which it was intended. The tape, before it passes over the pulley, should take the line of the thigh part of the instrument at whatever angle it may be placed, and whether it lies upon the heel or upon the side; it will therefore be necessary for the pulley to be suspended from the ceiling, the foot of the bedstead, by means of a forked stick, or any other means suited for the purpose. Counter-extension may be kept up by means of a bandage, padded and passed round the upper part of the thigh. The two ends of this bandage should be made to cross upon the ilium of the affected side; and then one end may be carried under the pillows, and the other over the chest to the opposite side of the body, where they may be fastened to the bed-post.

We now come to the cases which were treated according to the plan above related.

"I was favoured (says the author,) by Mr. Travers, with the treatment of the following case of fracture of the thigh.

"*Case 1.*—Thomas Barwick, æt. twenty-six, was placed under my care December 17th, 1821, for a simple fracture of the thigh across the middle. The injury was occasioned by the wheel of a cart, which

passed over the limb, considerable contusion and tension followed the accident; but the muscles were tranquil, and the fractured ends of the bone did not appear to ride.

"I saw him the fourth day from the time of the accident, and applied the machine. He had his bed made directly, and had it repeated during the cure as often as he wished; and placed his limb in any position most congenial to his feelings, either on the heel or on the sides, and altered the position at pleasure.

"January 17th, 1822, he got up with the instrument on, and walked about on crutches, supporting his limb in a sling. At the end of five weeks from the time of the accident, the machine was taken off; and, at the end of six, the man was able to walk without crutch or stick, and had a straight and perfect limb. As there was still some weakness about the muscles of the thigh, he was desirous to steady himself a little longer with a crutch or stick.

"He has since informed me, that he was able to carry a sack of malt the distance of fifteen yards, ten weeks after the accident."

"This case proves, as far as any one case can prove—1st, that there is no necessity for confining the patient to one position, during the cure of a simple transverse fracture of the thigh across the middle. 2d, That allowing the patient to alter the position of the limb under the restrictions above stated, does not retard the union. 3d, That the treatment here laid down is more conducive to the comforts of the patient and to a speedy cure than any previously adopted."

"Case 2.—I feel indebted to Mr. Key, assistant surgeon to Guy's Hospital, who kindly offered me the treatment of the following case:

"Mary Lovel, æt. forty-five, February 8th, 1822, slipped off the flag-stones, and, her foot twisting under her, she fell and broke the tibia and fibula just above the ankle joint.

"Fourteen days after the accident, I saw her. The tension and pain were then very great, and the foot was lying in the extended position, where it was kept by the spasmodic action of the gastrocnemii muscles; there was an angle formed by the bones projecting forward at the seat of fracture: and the fractured end of the lower portion of the tibia threatened to come through the skin. I was informed that the symptomatic fever had run high. She had been out of bed in a delirious state. Leeches, fomentations, and cold lotions, had been applied, and had, in some measure, reduced the inflammation and tension.

"The machine was now lightly applied upon the limb. 24th, The pain and tension having materially abated, the short splints were placed upon the leg; and, the straps having been drawn moderately tight, the woman was desirous to sit up with her leg across a chair. In a few days, she was able to walk about the room with the assistance of crutches. Three weeks after the application of the machine, the bones were found firmly united; and the limb was straight and perfect. The machine was now taken off, and she was desirous to walk about the room with the assistance of crutches, bearing lightly upon the foot at every step. In six weeks and two days she was able

to walk without crutch or stick ; but did not throw aside her crutches altogether till the end of the seventh week."

" *Case 3.*—T. C. æt. fifty-five, March 38th, 1822, fell from the step of a carriage, and his foot twisting under him, the tibia was fractured obliquely into the ankle-joint, and the fibula a little above it. He was put to bed with the limb upon the side. Ten leeches were immediately applied to the part, and the bleeding promoted by fomentation.

" 29th. The machine was applied and the leg kept wet with sedative lotion. He had considerable symptomatic fever, which was removed by a strong purgative. 31st. The active inflammation having subsided, short splints were applied to the leg, and the man ordered to get up, and put his limb across a chair. April 1st, the fourth clear day of the accident ; he was up yesterday, and has been walking about this morning with the assistance of crutches, supporting the limb in a sling, but not without considerable pain when the limb was hung down. The increase of pain in the fracture, occasioned by the pendant state of the limb, soon subsided, upon placing the limb in the horizontal position ; and, in the course of a few days, it became immaterial to him whether the limb was placed upon the floor or upon a chair. 13th. He was seized with a pleuritic attack, which confined him to his bed three days. 22d. The twenty-fourth clear day after the accident, the instrument was taken off, and the bones were found straight and firmly united. 23d. Soap plaster and a bandage being applied, he was desired to walk about with crutches, bearing lightly upon the foot at every step. Five weeks after the accident, this man was able to walk across the room without crutch or stick, but as he had not yet full power over the muscles of the leg ; he was desired to steady himself with one or the other a little longer."

" *Case 4.*—A lady of rank and fortune received a blow from the heel of a horse, as she was on horseback, on the lower part of her stirrup leg. The force fractured the fibula about two inches and a half above its lower extremity, and the tibia, an inch and a half above the point of the inner malleolus. She applied to her surgeon in the country, who placed her in the horizontal position, and did every thing he thought advisable. Eight weeks after the accident, finding she had no power over the limb, she came to town to consult Sir Astley Cooper, and by his recommendation, requested my attendance. The fibula was, at this time, united close to the side of the tibia, and the leg deformed in consequence ; but distinct crepitus and preternatural motion still remained between the fractured surfaces of the tibia. The machine was applied, and in five weeks and three days, the tibia, also, was found firmly united. During the cure, the lady walked about with the assistance of crutches, carrying the limb in a sling, received company, or took an airing in her carriage at pleasure."


" These three cases, 2d, 3d, and 4th, prove that there is no occasion to confine a patient to his bed for simple fracture of the leg, from the mere circumstance of the bones being broken.

"Case 2d shows, in particular, that the instrument made use of, is capable of keeping the upper and lower portions of a fractured leg in a proper line, notwithstanding the existence of considerable spasmodic action in the muscles, even after other means have failed.

"Case 3d goes to prove, that a patient may leave his bed a few days after the accident has occurred, provided the inflammatory action is got under, and it would appear, from the rapidity with which this man recovered, that the slight irritation kept up in the fracture, by occasionally hanging the limb down, accelerates the union of the bones."

"Case 4th shows, that the instrument is not only capable of keeping the bones in a proper line, but, also, of preventing any motion from taking place between the fractured surfaces ; for it will be recollected, that this was a case where the bones were little disposed to unite ; and, if motion had been produced in the seat of fracture, in consequence of her moving about, it is not likely that union would have taken place while she continued to do so. It might be said, that motion was produced between the fractured surfaces, and that this caused the bones to inflame and throw out callus ; but I believe it will be found, as I shall hereafter endeavour to show, that motion alone is little calculated to produce union in bone, any more than between the divided surfaces of any other texture."

The author states, that it is his intention to give an account of the use of his instrument in the treatment of compound fractures and cases of non-union, and also in the treatment of injuries of the knee and dislocations of the ankle ; but he reserves the consideration of these subjects till some future period. In the mean time, as we have heard the apparatus well spoken of by some good judges, we have presented the public a full account of it at our own private expense.



XIV.

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review since last Quarter.

1. A Treatise on the Disease termed PUERPERAL FEVER; illustrated by numerous Cases and Dissections. By JOHN MACKINTOSH, M.D. One vol. 8vo, pp. 323. Edinburgh, Nov. 1822.

2. A Historical and Topographical Essay upon the Islands of Corfu, Leucadia, Cephalonia, Ithaca, and Zanté; with Remarks upon the Character, Manners, and Customs of the Ionian Greeks, &c. By WILLIAM GOODISON, A.B. Assistant Surgeon in His Majesty's 75th Regiment. Octavo, pp. 267, with numerous maps and sketches, price 12s. 6d. boards. October, 1822.

☞ *We recommend this interesting little volume to all officers, civil and military, going to the Mediterranean, as containing a great mass of entertaining information. The medical matter will be found in the next number of our Journal.*

3. A Treatise on the Epidemic Puerperal Fever, as it prevailed in Edinburgh in 1821-22. To which is added an Appendix, containing the Essay of the late Dr. Gordon on the Puerperal Fever of Aberdeen in 1789-90-91-92. By WILLIAM CAMPBELL, M.D. Fellow of the Royal College of Surgeons; one of the Medical Officers of the Royal Public Dispensary, Lecturer on Midwifery. Octavo, pp. 400. Edinburgh and London, 1822.

4. Observations on the Acute and Chronic Dysentery of Ireland; containing a Historical View of the Progress of the Disease in Ireland, with an Inquiry into its Causes; and an Account of its Symptoms and Mode of Treatment; with a Report of selected Cases. By JOHN O'BRIEN, M.D. Fellow and Censor of the King and Queen's College of Physicians in Ireland; and Physician to the Fever Hospital and House of Recovery, Cork-Street, Dublin. Octavo, pp. 100. Dublin, 1822.

☞ *To be reviewed in our next, along with some other works on the same subject.*

5. Illustrations of the Inquiry respecting Tuberculous Diseases. By JOHN BARON, M.D. Physician to the General Infirmary at Gloucester. Octavo, pp. 234, and five coloured plates. London, 1822.

6. A Description of the Human Muscles with their several Uses, and the Synonyma of the best Authors. By JOHN INNES. A new Edition, with Notes, practical and explanatory, by JOHN HUNTER Surgeon and Lecturer on Anatomy in Glasgow. Illustrated with 18 new engravings of the muscles, by W. H. Lizars; 12mo, pp. 180. London & Glasgow, 1822.

☞ *Innes's Description of the Human Muscles has long held a distinguished place among the English medical classics. Mr. Hunter has improved the original Work, by the insertion of practical and explanatory notes, which seem to us to be judiciously selected, and perspicuously expressed. On this and other grounds, therefore, we can recommend his edition of INNES, as a cheap and faithful guide to students in the course of their dissections, and even*

to the operative surgeon, when preparing himself to relieve or eradicate disease with the knife. Did our space admit quotations, we should transfer to our own columns the notes standing at pages 30, 42, 45, 53, 75, 96, and 115, with others of equal importance. The plates are equal to any of the kind we have seen: the volume, indeed, is well worthy the attention and patronage of those for whose use it has been prepared.

7. Practical Observations on the Treatment and Cure of several Varieties of Pulmonary Consumption; and on the Effects of the Vapour of Boiling Tar in that Disease. By Sir ALEXANDER CRICHTON, M.D. F.R.S. Physician in Ordinary to their Imperial Majesties the Emperor and Dowager Empress of Russia, to His Royal Highness the Duke of Cambridge, &c. &c. One volume, octavo, pp. 261. London, December, 1822.

8. Sketches of Field Sports, as followed by the Natives of India, with Observations on the Animals. Also, an Account of some of the Customs of the Inhabitants, a Description of the Art of catching Serpents, as practised by the *Cunjoors*, and their Method of curing themselves when bitten; with Remarks on Hydrophobia and Rabid Animals. By DANIEL JOHNSON, formerly Surgeon in the Honourable East India Company's Service, and many years resident at Chittrah in Ramghur. Octavo, pp. 261, and one plate. London, December, 1822.

☞ This little volume contains a great mass of local information, which will be found most useful as well as amusing to the young civil, military, and medical officer in the East Indies. To them we recommend it conscientiously. It will also be found to contain much entertaining matter for the general reader in this country. We shall give some extracts from the medical portion of it in an early *Periscope*.

9. Pharmacopœia Imperialis, sive Pharmacopœia Londinensis, Edinburgensis, et Dublinensis collatæ; cum notis Anglicis Decompositiones Chemicas Exponentibus. Small 8vo, pp. 255. London, Dec. 1822.

☞ The Collator's preface will best explain the nature of this little work.

"The design of the *Pharmacopœia Imperialis* is to give a comparative view of all the formulæ in the last editions of the three *Pharmacopœias*, with a brief explanation of those processes in which the chemical changes produced are most worthy of remark. The Latin text has accordingly been preferred, and the corresponding formulæ have been successively arranged, so as to afford the best means of comparing them. In selecting, among several methods of accomplishing this design which were suggested, it was finally resolved to follow the plan of the London College, and to insert the formulæ of the Edinburgh and Dublin Colleges in their proper places conformable to this method. The Chemical Remarks have been made as short as was judged to be consistent with perspicuity: had these been more ample and copious, the book would have been rendered more expensive, without, perhaps, adding very materially to its value."—Preface.

The work is materially different from the *Conspectus* of Mr. Thompson, inasmuch as it gives the whole of the formulæ and directions of the three *Pharmacopœias* at full length, in Latin. It does not, however, give the properties, doses, uses, &c. of the medicines, as in Mr. T.'s *Conspectus*.

10. An Essay on the Medicinal Efficacy and Employment of the Bath Waters, illustrated by Remarks on the Physiology and Pathology of the Animal Frame, with reference to the Treatment of Gout, Rheumatism, Palsy.

and Eruptive Diseases. By EDWARD BARLOW, M.D. Graduate of the University of Edinburgh, Member of the Royal College of Surgeons of Ireland, one of the Physicians of the Bath Hospital, &c. Octavo, pp. 200. December, 1822.

11. Memoria su di un' Operazione di Litotomia Digna di Particolare Considerazione, &c. Da ANTONIO TRASMONDI ROMANO, &c. Quarto, pp. 27. Roma, 1822.

□ We return thanks to Mr. Babington for the above.

12. History and Method of Cure of the various Species of Epilepsy : being the Second Part of the Second Volume of a Treatise on Nervous Diseases. By JOHN COOKE, M.D. F.R.S. F.A.S. &c. Octavo, pp. 235. Longman and Co. February, 1823.

XV.

INTELLIGENCE, CORRESPONDENCE, &c.

From the following intelligence in the 20th number of the AMERICAN MEDICAL RECORDER, it will be seen that the MEDICO-CHIRURGICAL REVIEW has, ere this, become a Denizen of the United States.

"J. V. Seaman, New-York, has in Press, and will publish in Quarterly Numbers, *The Medico-Chirurgical Review*, and *Journal of Medical Science*;—conducted by associated Physicians and Surgeons, and superintended by JAMES JOHNSON, M.D. of the Royal College of Physicians, London.

"Each number of this work will contain upwards of 230 pages, forming a volume of nearly 1000 pages a year; each volume will contain three engravings. The price will be 5 dollars per annum, payable on the delivery of the first number.

"There are eleven numbers of this Journal now published in London, and it is proposed to commence at the first number, and to continue to reprint one number every month or six weeks, until we come up with the last number published in London, after which a number will be published regularly once a Quarter, in less than two months after its appearance in London.

"* Subscriptions for this valuable work will be received at the office of the *American Medical Recorder*."

While this event occasions a considerable pecuniary loss to the Editor,* he has some reason to be proud that his work is the first, and he believes, the only journal of medical science, that has ever before received the honour of transplantation from the continent of Europe to the continent of America, or indeed to any foreign soil.

We are not without hopes that our labours may conduce to harmonize the profession on both sides of the Atlantic, and diffuse "peace and good will," as well as professional information, throughout the various regions which this journal is now destined to travel. It must be some gratification to authors to know that the analyses of their works take now an extensive circuit in this Review on both sides of the Atlantic.

We have received a letter from Dr. J. M. Good, explaining the error which his printer made by converting *lb. 28 i* to *six hundred and twenty-eight*, mistaking the *b* for a 6, and thus raising the weight of a diseased liver to the

* The American demand will now be supplied in their own market.

above monstrous quantity.—See page 595. The leaf containing this error was early cancelled, but the notice did not reach us in time.

The long letter of PHILO-CRITICUS has reached us, but all his rhetoric will not persuade us to deviate from dense analysis and sparing criticism. Let him recollect that to veil oneself with an anonymous mask, and then strike unseen at every passenger, is not bravery and independence, but cowardice and assassination. Those hypercritics who call out most loudly for rigid severity on the writings of others, are, *to our knowledge*, abortive authors and unsuccessful journalists themselves. No man is so apt to impute improper motives to others, as those who are under the influence of improper motives themselves; and if we ever shall condescend to unmask these anonymous critics, the motives of their praises and censures will stand conspicuous before their brethren, and render themselves very low indeed in the eyes of the world.—*Verbum Sat.*

CASE OF MR. KNOX.

The Medical Intelligencer says, "Perhaps Dr. Johnson may recollect that one (of the physicians) pointed out to him the fact at his visit, *and traced the edge of the liver for his information.*" Dr. Johnson is under the necessity of denying this statement. The condition of Mr. Knox's abdomen, from his-
ters, totally precluded any such demonstration, and Mr. Knox's words to Dr. Johnson, in the presence of Dr. Armstrong, were these:—"Two eminent anatomists have declared to me that there is no enlargement of my liver." Dr. Armstrong has, since the publication of the case, drawn Dr. Johnson's attention to a private conference which they had together the first night of meeting at Mr. Knox's house, in which Dr. A. stated his belief that Mr. Knox's liver was enlarged, and that he thought he could trace the edge of it in the abdomen. Dr. Johnson has some recollection of this observation, though it did not recur to him at the time the notes were made of the case. The object of the publication of the case was to show that two eminent anatomists had been unable to detect any enlargement of the diseased viscus; and as Dr. J. made no examination, and gave no opinion himself, he could not possibly have any object in exaggerating or lessening any circumstance connected with it. Dr. Johnson could not but feel surprised at the manner in which the Medical Intelligencer displayed, or rather distorted the observation of Dr. Armstrong above alluded to, (which was totally unimportant in the narrative,) very clearly indicating a wish to attach a stigma on Dr. Johnson's veracity. Dr. J. would advise the Medical Intelligencer not to be too hasty in imputing evil to its neighbours.

Mr. Hutchinson's letter contains satisfactory reasons, why, in the second edition of his work, he was sparing of his own cases, and anxious to bring forward the testimonies of others.

We beg to direct the attention of our surgical brethren to the series of engravings of newly invented or improved surgical instruments, now publishing in this Journal by Mr. Weiss.

HUNTERIAN SOCIETY.

On Wednesday, February the 5th, the anniversary of this Society was held at the Society's Room, Aldermanbury, when the following members were elected officers for the ensuing year:—

President, Benjamin Robinson, M.D. *Vice Presidents*, William Babington, M.D. F.R.S. H. Lidderdale, M.D. Sir William Blizard, F.R.S. Benjamin Travers, Esq. F.R.S. *Treasurer*, B. Robinson, M.D. *Secretaries*, J. T. Coaquest, M.D. F.L.S. William Cooke, Esq. *Council*, Thomas Callaway Esq. W. D. Cordell, Esq. John Dunston, Esq. F.L.S. H. Greenwood, Esq. John

Winstone, Esq. H. Hawkins, Esq. J. C. Knight, Esq. Eusebius A. Loyd, Esq. J. Miles, Esq. B. C. Pierce, M.D. J. Roberts, Esq.

On the following day the members and friends of the Society dined together at the London Tavern—on which occasion Dr. Robinson took the chair. The report of the progress of the Society, and of the state of its finances, is encouraging.

DR. JENNER.

Since our last publication the illustrious Jenner has paid the final debt of Nature! He has gone to the tomb ripe in years, and fraught with honours of the most gratifying kind—the spontaneous plaudits of every enlightened nation on the earth. The discovery of vaccination will render the name of Jenner immortal, even if the vaccine matter itself, from some change in its nature, or revolution in the human system, should ultimately lose its power of protecting man against the variolous poison. For that the vaccine lymph had, and still has a protecting power in most, and a modifying power in almost all instances, the proofs are as clear and strong as of any fact or event that has ever happened, or is daily happening on the globe we inhabit. In those countries where the governments are more arbitrary and the subjects less free than in England, vaccination still bids fair to exterminate its baleful enemy; and if the light of reason and the evidence of truth be unable here to overcome stubborn self-will and blind prejudice, the melancholy consequences must not be suffered to detract from the merits either of the discoverer or the discovery. We cannot but hope, therefore, that the profession will evince some lasting testimony of their gratitude and esteem for their departed brother who, when alive, conferred an honour not only on the faculty of which he was a member, but the nation that gave him birth. We are glad to hear that Dr. Baron is intrusted with the unpublished papers of Dr. Jenner, and that they will not be withheld from the public.

Dr. Jenner, youngest son of the Rev. S. Jenner, was born 17th May, 1749, and at the age of 13 was apprenticed to Messrs. Ludlow of Sudbury, surgeons of some distinction. Here he became hypochondriacal, and acquired a morbid susceptibility, which he retained through life. He afterward became house pupil to the celebrated John Hunter, and laboured in the construction of the Hunterian Museum. On leaving London Dr. J. retired to Berkley, his native place, and there commenced private practice, where he soon attained considerable eminence. Having read his memoir on the natural history of the cuckoo to the Royal Society, he was soon afterward elected a fellow. His inquiry into the nature of the cow-pox, commenced about the year 1776, and it was introduced into the practice of this metropolis in the year 1796, by Mr. Cline. It was soon afterward introduced into the army and navy, and the medical officers of the latter service presented Dr. Jenner a gold medal representing Apollo, the god of physic, introducing a seaman recovered from vaccine inoculation to Britannia, who, in return, extends a civic crown, on which is inscribed "Jenner." The motto was—*Alba nautis stella refulsit*. The fame of the discoverer, and the substantial benefits of the discovery soon pervaded every civilized nation of the earth, and Dr. Jenner received congratulatory epistles from kings and emperors. Even Napoleon, in the zenith of his anti-British hatred, released whole families of English confined as detenus in France. The parliamentary reward, and the history of vaccination since that period, are sufficiently known. Dr. Jenner died suddenly of apoplexy, on the 26th of January, in the 74th year of his age—See the *Medico-Chirurgical and Philosophical Magazine*. No. 2, for Saturday, 15th Feb. 1823.

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